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ABSTRACT

Intended for use on national, state, and local levels, the ideas and data in this reference are organized by means of the Prevention Enhancement Protocols System (PEPS). This is a systematic process for evaluating evidence from prevention research and practice, which can then be developed into recommendations for practice. Chapter topics are: (1) "Substance Abuse Problems and the Status of the American Family," including "the extent of the problem" and "critical issues for families and children"; (2) "Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse"; (3) "Analysis of Evidence and Recommendations for Practice," which discusses "classification of preventive measures and description of approaches," and presents three major approaches with abstracts and recommendations for practice and reviews both research and practice evidence for each approach; (4) "Program Development and Delivery of Family-Centered Prevention Approaches"; (5) "Emerging Areas of Research and Practice," which includes a discussion of the constructs "Resilience" and "Family Support." Appendixes are: "Research and Practice Search Protocols," "Methodology," "Collateral Areas of Interest," "Abbreviations and Glossary," and "Resource Guide." (EMK)

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ED 424 523

Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention

Preventing Substance Abuse Among Children And Adolescents: Family-Centered Approaches

Reference Guide

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Prevention Enhancement Protocols System (PEPS)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention

CG028814

Prevention Enhancement Protocols System (PEPS)

PREVENTING SUBSTANCE ABUSE AMONG CHILDREN AND ADOLESCENTS: FAMILY-CENTERED APPROACHES

REFERENCE GUIDE

Second in the PEPS Series

Prakash L. Grover, Ph.D., Executive Editor

Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
Division of State and Community Systems Development

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The Prevention Enhancement Protocols System (PEPS) series was initiated by the Center for Substance Abuse Prevention in the Substance Abuse and Mental Health Services Administration (CSAP/SAMHSA) to systematically evaluate both research and practice evidence on substance abuse prevention and make recommendations for the field. In doing so, PEPS strives to maximize the prevention efforts of State substance abuse prevention agencies, practitioners, and local communities.

Prakash L. Grover, Ph.D., M.P.H., is the program director of PEPS and the Executive Editor of this guideline series for CSAP. Mary Davis, Dr.P.H., succeeded by Robert Bozzo, served as team leader for PEPS staff during the development process. With assistance from the Expert Panel, the PEPS staff—primarily Mim Landry, Susan Weber, and Deborah Shuman—wrote and edited the Reference Guide through several iterations. Karol Kumpfer, Ph.D., panel chair, was a major contributor to Chapter 2. Donna Dean wrote the Practitioner's Guide and the Community Guide, based on the evidence summarized in the main guideline.

Exhaustive review of the documents was conducted by Robert W. Denniston, Mark Weber, and Tom Vischi. Clarese Holden served as the Government Project Officer of the Prevention Technical Assistance to States (PTATS) project, under which this publication was produced.

The presentations herein are those of the Expert Panel and do not necessarily reflect the opinions, official policy, or position of CSAP, SAMHSA, or the U.S. Department of Health and Human Services.

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Foreword

The Center for Substance Abuse Prevention in the Substance Abuse and Mental Health Services Administration (CSAP/SAMHSA) is committed to enhancing prevention activities as planned and implemented by federally funded State agencies and community-based organizations across the country. Through a participatory process involving policymakers, researchers, program managers, and practitioners, the Prevention Enhancement Protocols System (PEPS) is generating products that can substantially improve planning and management of prevention programs, consolidate and focus prevention interventions, and potentially serve as the foundation for prevention studies.

CSAP selected the topic of family-centered prevention approaches because problems of substance abuse among adolescents are pervasive, serious, and usually embedded in multiple issues of adolescent antisocial behavior relating to mental health, delinquency, violence, poverty, and parental and family incapacities. Additionally, etiological and intervention research is increasingly demonstrating how adolescent problems of antisocial behavior have roots in the family's structure and in the greater community in which the family exists. On both national and local levels, government, communities, and organizations are interested in finding ways to more effectively support families in their efforts to meet the needs of their children.

This guideline is designed for broad use. Its intended audiences include not only State substance abuse agencies but also national, State, and local organizations that address issues relating to children and families, such as substance abuse, delinquency, child health and welfare, and family support. It is a practical, detailed guide for considering the advantages and disadvantages of specific interventions and for planning prevention initiatives in the community.

The most important aspect of PEPS is the use of systematic protocols to prepare guidelines such as this one. Ultimately, the overarching methodological accomplishments of PEPS may have far greater influence than any single guideline, for they will have given birth to a tradition of development and dissemination of science-based recommendations for the substance abuse prevention field.

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Acknowledgments

An extensive review of the evidentiary research and practice literature on a subject such as the one represented by this guideline is a collaborative venture requiring dedicated participation and the skills of many people. One can only attempt to adequately thank these individuals in a forum such as this.

On behalf of CSAP, I would like to express our deep gratitude to Dr. Karol Kumpfer and Dr. José Szapocznik, co-chairs and members of the Expert Panel (appendix A), for their hard work and dedication in systematizing and synthesizing the evidence on the role of family in substance abuse prevention. The panel's vision in adding sections on emerging strategies and collateral research will be particularly useful to both practitioners and researchers. Of course, throughout this process, the leadership and guidance of the Planning Group has been invaluable. Both the Planning Group and the Expert Panel reviewed several drafts of the guideline, and their efforts are reflected in the final version. We would also like to acknowledge the contributions of the Federal Resource Panel in sharpening the focus of the guideline and for their assistance in accessing fugitive literature.

Many researchers and practitioners in the field reviewed the guideline and provided valuable comments. We believe that their incorporation has substantially improved the final product. Thanks are also due to staff in various CSAP divisions who reviewed successive versions. Special thanks are due to Tom Vischi, Mark Weber, and Bob Denniston for their extensive review and comments. I would be seriously remiss if I did not acknowledge the leadership and support of Dr. Ruth Sanchez-Way, director of the Division of State and Community Prevention Systems.

Last but not least, I want to express my deep appreciation for the staff at Birch & Davis Associates, Inc., who drafted the guideline documents and tirelessly reworked them as they passed through various stages of review. The contribution of EEI Communications in final copyediting, production, and quality control is also sincerely appreciated.

Executive Editor

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About This Guideline

The Prevention Enhancement Protocols System (PEPS) is a systematic and analytical process that synthesizes a body of knowledge on specific prevention topics. It was created by the Division of State and Community Systems Development of the Center for Substance Abuse Prevention in the Substance Abuse and Mental Health Services Administration (CSAP/SAMHSA) primarily to support and strengthen the efforts of State and territorial agencies responsible for substance abuse prevention activities. The PEPS program is CSAP's response to the field's need to know "what works," and is an acceptance of the responsibility for leading the field with current information supported by the best scientific knowledge available.

This second guideline in the PEPS series summarizes state-of-the-art approaches and interventions designed to strengthen the role of families in substance abuse prevention. This topic was chosen in response to the field's expressed need for direction and in recognition of the important role of the family as the first line of defense against the dangerous, insidious, and addictive consequences of substance abuse.

THE PEPS DEVELOPMENT PROCESS

The development of a PEPS guideline begins with the deliberations of a Planning Group comprising nationally known researchers and practitioners in the field of substance abuse prevention. With input from their colleagues in the field, these experts identify a topic area that meets pre-established criteria for developing a guideline. A Federal Resource Panel (FRP) with representatives from appropriate Federal agencies then convenes to discuss the proposed content of the guideline. The FRP, taking into consideration recommendations from CSAP and the PEPS Planning Group, identifies those experts in the field best suited to serve on an Expert Panel for the chosen topic.

Once formulated, the Expert Panel meets to determine the scope of the problem to be addressed in the guideline. The PEPS staff conducts exhaustive searches for relevant research and practice information, guided by the knowledge of the Expert Panel and its chair. The studies and practice cases found are extensively analyzed and their findings compiled and presented in draft form according to the similarity of the prevention approaches used.

A subpanel of selected Expert Panel members then meets to apply the PEPS Rules of Evidence (described later in this section) to formulate summary judgments on the quality of the research and practice evidence, by approach, and to develop recommendations for the prevention field. This draft is reviewed by the full panel. A revised version of the guideline, including the revisions of the Expert Panel, is distributed for extensive review by the field. The critique and analysis received are used to further refine and increase the accuracy, readability, and presentation of the guideline.

PEPS SERIES GOALS

The primary goal of PEPS is to develop a systematic and consistent process for improvement of substance abuse prevention practice and research. Its objectives are to

- synthesize research and practice evidence on selected topics,
- present recommendations for effective substance abuse prevention strategies in versions suitable for several target audiences,
- ensure that PEPS products receive optimal dissemination among target audiences, and
- monitor the usefulness and relevance of PEPS products.

Although lessons from available science are distilled and specific recommendations are made, this guideline is not a "how-to" handbook, nor is it a prescriptive prevention planning guide. Audiences for PEPS products include State prevention agencies, other Federal and State authorities, and community-based organizations addressing the problems of substance abuse or serving populations at high risk. Therefore, targeted users of PEPS guidelines include policy analysts and decisionmakers, who need sound data to justify funding for prevention planning; State agency and community-based administrators and managers, who will find the series useful in allocating resources and planning programs; researchers, who will receive guidance on the need for future studies; and practitioners, who will find recommendations for programming options that are most appropriate for the populations they serve.

THE SCOPE OF THIS GUIDELINE

Preventing Substance Abuse Among Children and Adolescents: Family-Centered Approaches focuses on research and practice evidence for a select number of approaches to the prevention of family-related problems. The criteria used for inclusion of studies in this guideline (described in appendix B) excluded some research and practice evidence. Although other conceptual or practice approaches do exist, sufficient documentation of their use is not yet available. This guideline describes the following three prevention approaches:

1. Parent and Family Skills Training.
2. Family In-Home Support.
3. Family Therapy.

The information included in this guideline was used to develop two additional publications: a Practitioners' Guide and a Parents' and Community Guide. The Practitioners' Guide summarizes much of the information in this guideline and highlights practical information that is most useful to those directly involved in planning and implementing prevention programs. The Parents' and Community Guide provides a brief overview of substance abuse problems and courses of action for concerned citizens, and provides tips for becoming involved in family-centered prevention.

LEVELS OF EVIDENCE

At the heart of the guideline development process are several concepts concerning the weight of evidence that makes research or practice information strong enough to serve as the basis for recommendations. Because these concepts are at the foundation of understanding the rigorous process used to develop this guideline, they are explained in detail in this introductory section.

The term *research evidence* refers to the research-based body of knowledge that exists for a specific prevention approach. This information is gained from scientific investigations that range in design rigor from experimental to quasi-experimental to nonexperimental. The term *practice evidence* describes information gained from prevention practice cases, information generally presented in the form of well-designed and -executed case studies that include process evaluation information on program implementation and procedures.

In chapter 3, the description of each prevention approach includes at least one shaded box that presents information on *levels of evidence*. These boxes highlight the consensus of the Expert Panel on conclusions that can reasonably be drawn from an analysis of the research and/or practice evidence for each approach. These boxes also indicate the strength of the level of cumulative evidence supporting the conclusions. The criteria for assigning levels of evidence are shown in the following boxes. The first three categories for level of evidence indicate the extent of research and practice evidence for rating the varying degrees of confirmation of positive effect. The fourth category applies to research and practice evidence indicating that a prevention approach is ineffective.

Strong Level of Evidence

a. Consistent positive results of strong or medium effect from a series of studies, including:

   - At least three well-executed studies of experimental or quasi-experimental design

   OR

   - Two well-executed studies of experimental or quasi-experimental design

   AND

   - Consistent results from at least three case studies

b. The use of at least two different methodologies

c. Unambiguous time ordering of intervention and results

d. A plausible conceptual model ruling out or controlling for alternative causal paths or explanations

Application. This level of evidence means that practitioners can use a prevention approach with the most assurance that the approach can produce the particular effect specified in the evidence statement.

Medium Level of Evidence

a. Consistent positive results from a series of studies, including:

   - At least two well-executed studies with experimental or quasi-experimental designs

   OR

   - At least one well-executed study and three prevention case studies showing statistically significant or qualitatively clear effects

b. The use of at least two different methodologies

c. Unambiguous time ordering of intervention and results when so measured

d. A plausible conceptual model, whether or not competing explanations have been ruled out

Application. This level of evidence means that although the number or rigor of the studies reviewed is limited at this time, there is still substantial support for a prevention approach's ability to produce the particular effect specified in the evidence statement. Practitioners can proceed but should exercise discretion in application and in assessment of process and outcomes.

Suggestive but Insufficient Evidence

This category is used to describe research and/or practice evidence that (1) is based on a plausible conceptual model or on previous research and (2) is being demonstrated in rigorous evaluation studies or appropriate intervention programs currently in process. One of two conditions typically causes evidence to be described as suggestive but insufficient:

a. In the first condition, the evidence, although limited, appears to support a conclusion, but *additional research is needed* to fully support the conclusion. This condition often applies to areas in which there has been little study, such as those that are impractical to research or new areas of study.

b. A second condition involves *equivocal results*. In this condition, a specific conclusion is supported in some studies but is not supported in others.

Application. This level of evidence means that the prevention approach has shown promise for the effect specified but should be regarded as not well documented. Practitioners should be cautious about undertaking approaches with this level of evidence. However, depending on local circumstances, should the approach fit the situation and merit adoption, special attention should be given to its systematic testing and documentation.

Substantial Evidence of Ineffectiveness

This category describes research and practice evidence demonstrating that a prevention approach is not effective. The criterion for inclusion in this category is the *absence of a statistically significant effect or a statistically significant negative effect* in a majority of well-executed studies, including at least two quantitative studies with sample sizes sufficient to test for the significance of the effect.

Application. This level of evidence means that the approach has not demonstrated the intended results or has shown negative findings for the particular effect specified. Practitioners should avoid these approaches because they offer no promise of success at this time.

Using Levels of Evidence in Program Planning

Because prevention activities vary in their emphasis, scope, and content, no two research studies or practice cases are the same. As they differ in the subjects of evaluation and in the methods used, it is difficult to reach a single conclusion about a particular approach. Additionally, there may be varying levels of evidence for different desired results of a prevention approach, as shown by similar findings from more than one study. Therefore, more than one evidence statement may be made to identify and rate conclusions that can be drawn from evidence available on a single approach. For instance, studies may show that a prevention approach has *strong evidence* for attaining a desired effect in the short term, but *suggestive but insufficient evidence* for sustaining that effect over time.

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The prevention approaches presented in this guide should be considered in light of local circumstances; it may not be feasible to implement only those approaches with a strong level of evidence. Local needs, interests, resources, and abilities—as well as the level of evidence—must all be considered when planners and practitioners make program development choices.

RECOMMENDATIONS FOR PRACTICE

Following analysis of evidence for each approach, a special section outlines recommendations for practice. This section presents the PEPS Expert Panel members' recommendations, suggestions, observations, and interpretations regarding the prevention approach evaluated in the preceding text. General recommendations and suggestions that are applicable to more than one prevention approach appear later in the chapter.

Types of Recommendations

The recommendations for practice vary considerably in nature and intent. Some are practical suggestions for optimal implementation of a particular intervention while others suggest techniques and cautions to avoid problems. A few are practical observations about what to expect during certain prevention activities. Others interpret research findings or illustrate the practical context of prevention efforts. Some recommendations reflect expert opinions of the panel members, such as assumptions and hypotheses that drive certain prevention activities. Many represent "best practices" among prevention experts. Some recommendations relate to implementation of specific prevention interventions. (A comprehensive discussion of implementation is presented in chapter 4.)

Basis of Recommendations

These recommendations are based on the research and practice evidence reviewed in the Analysis of Evidence section, additional evidence not described in the section, and the professional experience and opinions of Expert Panel members. Many recommendations are derived from the experiences of Expert Panel members involved with research or practice activities that are not explicitly described in this chapter.

These recommendations represent the transfer of practical information from prevention research and practice experts to prevention decisionmakers, such as State and local prevention authorities, other prevention practitioners and researchers, and members of community prevention organizations.

A REQUEST TO READERS

Based on comments received from users of the first guideline, *Reducing Tobacco Use Among Youth: Community-Based Approaches*, several significant changes have been made in the structure and presentation of this publication. CSAP actively seeks a continuing dialog with its constituents on the extent to which they find this series useful and the ways in which future guidelines may be improved. Therefore, comments are actively solicited for inclusion in revisions of this guideline or in production of future guidelines. They should be referred to: PEPS Program Director, Division of State and Community Systems Development, Center for Substance Abuse Prevention, SAMHSA, 5600 Fishers Lane, Rockwall II, Rockville, MD 20857.

Introduction

A major focus throughout our society is the importance of the family in sustaining the foundations of American values; cultures; and religious, educational, economic, and community institutions. Increasingly, however, there are significant indications that our Nation's children are having difficulty acquiring the skills necessary to become competent, caring adults who can live together peacefully and productively in communities. In the face of tremendous stresses in society and often in the family itself, many parents worry about their ability to help their children develop the values and skills that will enable them to succeed as adults.

Sometime in early to middle adolescence, many young people begin to use and abuse alcohol, tobacco, and illicit drugs.

In particular, there is recognition that in early to middle adolescence (and sometimes earlier), many young people begin to use and abuse alcohol, tobacco, and illicit drugs. For many of these young people, substance abuse is only the most recent manifestation of antisocial or other problem behaviors that developed during childhood years, a time when they were most closely supervised by their families. For a variety of reasons, their families were unable to prevent or arrest these early problems and the later onset of substance abuse in their children. When these problems escalate during early adulthood, the result is often a lack of motivation or an antipathy toward the pursuit of socially approved pathways to income and education. These young adults may then, in turn, be unable to effectively nurture their own children. Some may use violence as a primary problem-solving tool.

There is increasing recognition that such problems do not merely characterize a few very troubled youth, but are found in significant numbers of American families. And although it is clear that the problems of substance abuse are not necessarily associated with poverty, families with limited social and economic resources are particularly vulnerable.

However, family problems do not exist in isolation. They also exist and must be addressed within communities. The policies, resources, attitudes, and support networks found within a community can provide opportunities for families to learn healthy ways to meet their needs and address their problems.

The purpose of this guideline is to present the audience with ways to work with families to address the risks that may lead children to substance abuse. The preven-

tion approaches described here are based on both research and practice evidence on family-centered strategies to prevent substance abuse among youth.

RATIONALE FOR THE FAMILY AS A FOCAL POINT FOR SUBSTANCE ABUSE PREVENTION

Family and community life are the contexts within which young children cultivate desired prosocial behaviors that will lay the foundation for adolescent development. Children develop over time, learning, relearning, and adding new skills in each developmental period in their lives. As they grow, living within the context of the nurturing available from their parents and life experiences that may be enhancing or damaging, they undergo successes and failures, gains and losses, growth and setbacks. As they grow older, the influence of peers plays an increasing role in their lives. Some children emerge into adolescence with advanced prosocial skills, whereas others may have many problems (biological or interpersonal) that inhibit development of these skills. A child's limitations in coping with some of the problems that are known risk factors for substance abuse can be the precursor from which adolescent substance abuse emerges.

Although substantial accuracy can be claimed for the foregoing portrait of children, families, and communities, practitioners of substance abuse prevention often do not design their interventions accordingly. Frequently, they do not begin addressing the problem until adolescence, although data indicate that it begins in childhood. Further, they overwhelmingly promote school-based prevention strategies that target the child or adolescent and his or her peers, but neglect the family context. Finally, although it is well documented that the capacities of families are related to the support they receive from the communities in which they live, the presence of that support, as well as gaps and needs in support systems, are rarely acknowledged or assessed in preparing for prevention interventions. This guideline presents prevention approaches that take these factors into account, demonstrating evidence of effectiveness.

Family Life and the Development of Children

Family life provides the critical context for the nurturing and development of children into healthy, competent, and caring adults. For some, this context includes one or two parents and siblings. For others, this context includes an extended network of family members who are biologically related or who are "like family." For still others, this context includes a community of people, such as a church community, a cultural community, or a closely knit neighborhood, with whom the family closely identifies and who are committed to the joint effort of raising their children.

The members of a family, however defined, are interdependent in their functioning. Each has roles and responsibilities that are crucial to the success and support of the

entire family. Whatever limits or weakens the capacity of one member to carry out his or her roles or responsibilities weakens the entire family. Likewise, the steps taken to strengthen the entire family have a positive impact on all family members.

Community Life as the Context for Families

Children need families that have time for them; that eschew violence and discord as methods for solving problems; that have values and rules that sustain and protect their family life together; that keep them safe and protected; and that meet basic needs, such as food, housing, health care, and education. Just as children need the nurturing, stimulation, protection, and resources that caring adults can provide, families need such support from a caring community. All families need decent housing, safe neighborhoods, adequate schools, access to health care, income from employment, and respect from others for their culture. Some families meet these needs with relative ease and require only occasional support for specific problems that may arise. Others have greater difficulties and need protracted support and assistance.

A smaller percentage of families have the greatest need for resources and support but have only marginal capacities to find and use those resources. These families may need active intervention to ensure the protection of children and family members. Even for these families, however, interventions must involve them fully in the solutions, build on family strengths, and preserve family integrity.

DEFINITIONS USED IN THIS GUIDELINE

A number of terms used throughout this guideline have specific meanings within the context of family-centered prevention. These terms are defined and discussed here to assist the reader in using the guideline.

Family

This guideline addresses interventions for families with school-aged children (parents or parent figures who are raising children between 5 and 18 years of age). For the purposes of this guideline, therefore, *family* is defined as parents (or persons serving as parents) and children who are related either through biology or through assignment of guardianship, whether formally (by law) or informally, and who are actively involved together in family life—sharing a social network, material and emotional resources, and sources of support. Persons serving as parents can be foster, adoptive, or divorced parents, stepparents, or extended family members or friends with formal or informal guardianship of children. In a given household, the family may include one or two parents and/or guardians, children, extended family members, and other individuals regularly living there who are involved in the ongoing care of the children.

Prevention

As most who work in the field of prevention are aware, agreement on a definition of *prevention* is problematic. The traditional definition, which has been used for a broad range of prevention efforts, draws upon the public health classification system of disease prevention first proposed by the Commission on Chronic Illness in 1957, cited in the Institute of Medicine (1994). According to this schema:

- *Primary prevention* efforts seek to decrease the number of new cases of a disorder.
- *Secondary prevention* efforts seek to lower the rate of established cases.
- *Tertiary prevention* efforts seek to decrease the amount of incapacity associated with an existing condition.

According to the above public health definitions, primary prevention efforts are suitable for the general population, secondary prevention efforts focus on high-risk populations that are beginning to exhibit a problem, and tertiary prevention efforts address the needs of persons who are already experiencing a problem. This traditional definition of prevention, however, has become increasingly difficult to apply because of the complexity of biological, psychological, and social factors associated with substance abuse and the interplay between risk factors and mitigating protective mechanisms. Targeted populations and the interventions directed toward them do not fall neatly into one slot. It has become increasingly difficult to make distinctions between prevention and treatment.

An alternative classification scheme for prevention offered by Gordon (1983, 1987; also cited in Institute of Medicine, 1994) is used in this guideline. Gordon has operationally classified prevention measures on the basis of the population groups for which they are optimally used, incorporating an assessment of the benefits and the costs of addressing various populations. In the application of this scheme to family-centered substance abuse prevention, the benefits of addressing populations at various degrees of risk for substance abuse are weighed against the cost to society of carrying out interventions with these families.

Gordon defined the three categories of *universal*, *selective*, and *indicated* preventive measures as follows:

- *Universal Preventive Measures* are directed toward a general population. In the context of family-centered substance abuse prevention, universal measures are directed to general population groups that have not been identified on the basis of risk factors related to substance abuse (i.e., have no known risks) but for whom exposure to prevention strategies could reduce the possibility of substance abuse.

Universal prevention strategies are beneficial in that they address a wide-ranging audience that includes everyone who might possibly gain something. Although a universal preventive measure can be brief, resulting in a low cost per family, some costs will be incurred in providing prevention strategies to families who do not need them.

- *Selective Preventive Measures* are directed to members of subgroups of the population whose risk of developing problems is above average. In the context of family-centered substance abuse prevention, selective measures are directed to families with children who do not yet abuse substances but who, as a subgroup, have an above average risk for developing substance abuse problems.

  The benefit of selective preventive measures is derived from the opportunity to focus intensively on groups of families who may have a greater than average need for these interventions. These tailored interventions may be more expensive per family, and costs may be incurred for families who do not engage in or sustain participation in the program.

- *Indicated Preventive Measures* are applied to individuals who, on examination, are found to manifest a risk factor, condition, or abnormality that identifies them as being at high risk for the future development of a problem. When used in the context of family-centered substance abuse prevention, indicated measures are directed to specific families (as opposed to subgroups of families) whose children are not abusing substances but who have known, identified risk factors for doing so.

  The benefit of using indicated preventive measures lies in the capacity to target those families with the most serious problems and to design interventions to meet their specific needs. These interventions have a high cost per family; these families are beset by such serious difficulties that the interventions must be lengthy and comprehensive to be successful. Further, families with these difficulties are often unable to marshal the motivation and resources needed to participate or remain in the program until they can realize its full benefits.

Families receiving prevention interventions that employ universal and selective measures are usually recruited from general populations or from higher risk subgroups. For this reason, these interventions are likely to include families at higher risk than the intervention is intended to address. Thus, it is important that these interventions incorporate referral resources for families who may need more assistance than the intervention is designed to provide.

In making complex decisions about the choice of substance abuse interventions, this set of definitions is likely to be more helpful to program developers than the traditional set. Program developers can use this framework to make relative judgments

by weighing numerous factors, including benefits and costs, rather than thinking only in terms of three exclusive choices. Local communities can decide which risk factors to target based on the interplay of local community and family dynamics, resources, and problems. Table I-1 summarizes aspects of this broader definition of prevention that can be considered when making these decisions.

TABLE I-1: Characteristics of Substance Abuse Preventive Measures

Type of Measure	Target Population*	Primary Goals	Primary Benefits	Cost Considerations
Universal	All families in a common setting that is not distinguished by degree of risk (i.e., school district, community, or religious institution).	To teach parents and children how to recognize the risk and protective mechanisms for substance abuse and how to improve family life to reduce risks and enhance protective factors.	Provides every family with the basic skills to address general concerns about substance abuse and with a knowledge base to recognize substance abuse risks and problems. Provides families general support in raising their children to avoid substance abuse problems. Benefits communities by giving all families a source of support in preventing substance abuse.	High costs are incurred by serving everyone, including families who do not need help. Cost per family can be low because the intervention is less intensive than other measures and does not address specific risks.
Selective	Families who share common general risk factors for substance abuse, such as economic deprivation, single-parent household, and location of home in high-risk community.	To teach parents and children specific skills to improve family interaction patterns and family management practices in order to reduce risks of antisocial behavior and accompanying substance abuse and to enhance prosocial behavior. To provide families with the opportunity to practice skills in a supportive environment.	Benefits families and children who may be struggling with unusual stress in coping with difficulties in their lives, thus making them more vulnerable to substance abuse. Offers support and opportunities to children and families to prevent problems from becoming more serious. Benefits communities by addressing problems before they become entrenched in individual families.	Costs are focused on families who may need extra help, and interventions are enhanced by targeting high-risk populations. Intervention may be more expensive per family because of the need to address the specific risks of participating families.

TABLE I-1: Characteristics of Substance Abuse Preventive Measures (continued)

Type of Measure	Target Population*	Primary Goals	Primary Benefits	Cost Considerations
Indicated	Families with children who already exhibit diagnosed or documented antisocial behavior, conduct disorder problems, or other behavior problems that place them at risk for substance abuse.	To provide parents and families with sustained therapeutic counseling, therapeutically focused parent or family skills training, or in-home services designed to intervene in a specific family. To reduce the risks of behavior problems and accompanying substance abuse and enhance prosocial behavior. To provide extensive opportunity for families to integrate new behavior patterns and skills.	Benefits families and children who have already diagnosed problems, such as antisocial behavior, and communities that are experiencing the consequences of that behavior.	Interventions, and therefore, costs are targeted to those most in need. Cost per family is high because intervention requires sustained, intensive efforts by a family therapist.

*For all measures, the target population is composed of families whose children are not abusing alcohol, tobacco, or illicit drugs.
SOURCE: Gordon, R. (1983). An operational classification of disease prevention. *Public Health Reports 98*(2),107-109.

Effectiveness

In this guideline, the term *effectiveness* is used to describe the degree to which a prevention approach or intervention achieves specified objectives or outcomes. Program evaluators generally use two terms when assessing the general concept of effectiveness—"efficacy" and "effectiveness." *Efficacy evaluation* is used when an intervention is assessed under ideal program conditions—usually a well-funded project conducted by researchers. *Effectiveness evaluation* assesses an intervention under practice conditions—typically, the implementation of an intervention in the field (Windsor, Baranowski, Clark, & Cutter, 1994). In this guideline, evidence based on both types of effectiveness evaluation has been considered in reviewing prevention interventions.

Substance Abuse

The term *substance abuse* broadly refers to the consumption of psychoactive drugs in such a way as to significantly impair an individual's physical, psychological, or emotional health; interpersonal interactions; or functioning in work, school, or social settings. With regard to minors, the term refers to their use of any psychoactive substance that only adults may purchase (i.e., alcohol and tobacco) or of illicit substances, including marijuana and hashish; cocaine and crack cocaine; heroin;

phencyclidine (PCP); steroids; so-called "designer" drugs or illicit synthetics; inhalants; and psychoactive prescription and nonprescription medications. According to this definition, any level of use by minors of any of these substances is considered substance abuse.

Antisocial and Other Problem Behaviors

Most families with children experience child conduct and behavior problems. These behaviors vary greatly with regard to frequency, severity, type, impairment, and consequences. Some children occasionally break minor rules, resulting in negligible consequences, whereas others engage in persistent patterns of aggression and delinquency whose consequences are more serious. The child problem behaviors experienced by most families lie somewhere between these two extremes.

This guideline focuses on interventions designed for families with children who may have behavior-related problems or disorders or both. Thus, in this document, the term *antisocial and other problem behaviors* can describe either behavior-related problems or behavior-related disorders or both.

Behavior-Related Problems

Children with behavior problems that are isolated or intermittent can be said to have behavior-related problems. These problems, which may be characterized by episodes of impulsiveness, aggression, destruction, negativity, disobedience, and hyperactivity, are not part of a persistent behavior pattern and vary in severity and seriousness of their consequences. For instance, occasional episodes of impulsiveness or disobedience are often considered a natural part of the development process and require no professional attention. In other cases, serious but intermittent episodes of aggression or destruction may prompt parents to seek help with child management. In this guideline, families receiving interventions using selective or universal measures for preventing substance abuse are considered likely to have children with behavior-related problems.

Behavior-Related Disorders

Children with behavior problems that occur in persistent patterns and characteristic clusters and that cause clinically significant impairment are said to have behavior-related disorders. These disorders are defined by mental health professionals as mental disorders and often cause family distress that necessitates clinical management for the child and assistance for the parents. In this guideline, children of families receiving interventions using indicated measures for preventing substance abuse are likely to have one of a handful of mental disorders related to child conduct problems.

In particular, disorders related to behavior and conduct problems include attention deficit hyperactivity disorder (ADHD), conduct disorder, and oppositional defiant disorder. As is true for behavior-related problems, these disorders range in intensity and impairment from mild to severe. Table I-2 illustrates the characteristics of four disorders that are associated with child and adolescent conduct and behavior problems.

TABLE I-2: Behavior-Related Disorders

Disorder	Prominent Characteristics
Attention deficit hyperactivity disorder	Persistent pattern of inattention and/or hyperactivity and impulsivity.
Conduct disorder	Repetitive and persistent pattern of violating the basic rights of others or major age-appropriate societal norms or rules.
	Can include aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules.
Oppositional defiant disorder	Recurrent pattern of negative, defiant, disobedient, and hostile behavior toward authority figures.
	Includes some features of conduct disorder but does not include the persistent pattern of violating the rights of others or major societal norms or rules.
Adjustment disorder	Clinically significant emotional or behavioral symptoms in response to a psychosocial stressor.
	Includes distress in excess of expectations or significant impairment in social or academic functioning.

SOURCE: Adapted from American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

CONTENT OF THE GUIDELINE

Each of the five chapters of this guideline explores a different aspect of family-centered approaches for preventing substance abuse among children and adolescents.

Chapter 1, *Substance Abuse Problems and the Status of the American Family,* describes the status of families in American society with respect to key demographics and statistics about the problem of substance abuse in families, specifically for women and youth. Following the discussion of the patterns of substance use in the general population, in women, and in adolescents, as well as an overview of the risks associated with adolescent substance abuse, is a description of the stressors that create an environment in which both children and adults are at high risk for substance abuse. Chapter 1 provides the rationale underlying the family-centered prevention approaches discussed in the remainder of the guideline.

Chapter 2, *Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse,* explores the factors in children's lives that predispose them to, or protect them from, the risk of substance abuse. The complex and interrelated circumstances that make it likely that a child will abuse drugs in adolescence have been studied extensively by many researchers. Increasingly, investigators are also examining those mechanisms that interact with these risk factors to prevent or ameliorate their effects. This chapter explores the ways in which these risk and protective factors interact and the etiological models that explain how substance abuse and other antisocial behaviors develop in young people. Finally, a brief overview is given of the prevention approaches that are based on these etiological models and that are presented in greater detail in chapter 3.

Chapter 3, *Analysis of Evidence and Recommendations for Practice,* presents an analysis of the effectiveness of three family-centered approaches to the prevention of substance abuse in youth: parent and family training, family in-home support, and family therapy. The chapter includes an analysis of research and practice evidence for these prevention approaches as well as suggestions, recommendations, and interpretations from the Prevention Enhancement Protocols System (PEPS) Expert Panel.

Chapter 4, *Program Development and Delivery of Family-Centered Prevention Approaches,* discusses appropriate methods to assess, plan, deliver, and evaluate family-centered approaches to prevent substance abuse. This chapter describes specific issues that practitioners should address to maximize the effectiveness of implementation efforts. It also includes relevant research and practice findings from chapter 3 that illustrate the challenges faced by practitioners during program development and delivery.

Chapter 5, *Emerging Areas of Research and Practice,* explores two constructs, resilience and family support, that are widely incorporated into prevention practice but for which the level of research evidence is still relatively unknown. The stringent evidence-based process for examining the prevention approaches presented in chapter 3 resulted in the exclusion from that chapter of some issues that did not meet the criteria for sufficient research and practice evidence; however, these issues may be of great interest to practitioners. Therefore, chapter 5 presents the status of research and evaluation of these two constructs to enable practitioners to take them into account when planning interventions.

INCLUSION AND EXCLUSION OF RESEARCH AND PRACTICE

Chapters 2, 3, and 4 provide the reader with review, evaluation, and recommendations regarding three family-centered prevention approaches: parent and family training, in-home support services, and family therapy. However, the broad field of family-centered prevention is not limited to these approaches. Especially in chapter

3, decisions to include or exclude family-centered prevention approaches were based on a selection protocol with inclusion and exclusion criteria, the key inclusion criteria being that sufficient research evidence be available to assess their effectiveness. Appendix B provides a complete description of the research and practice search protocols used to develop this guideline.

Adequacy of Evidence

The first criterion for inclusion was that a potential prevention approach have sufficient research and practice evidence—that is, enough research studies and practice cases must have existed to be reviewed and evaluated. A prevention approach must have been addressed by at least three intervention research studies. Prevention approaches having practice evidence but no research evidence were excluded. Many prevention practice cases were excluded because the programs did not sufficiently document process evaluation activities. Prevention approaches that were excluded on the basis of insufficient research and practice evidence included parent leadership, parent peer support, parent involvement in youth substance abuse prevention programs, parent-child activities, and parent education.

As stated earlier, because of an inadequacy of research evidence, two potential prevention approaches, resilience and family support, were excluded from formal review and analysis in chapter 3. However, they are described and reviewed in chapter 5 as emerging areas of research and practice.

Relevance to Topic

Research evidence was evaluated with regard to relevance to the topic of family-centered substance abuse prevention and application of an intervention to prevent substance abuse among children and adolescents. The criteria stated that the child, rather than the family, was the target of prevention efforts; the treatment group had to comprise more than 10 subjects; the intervention study had to have relevant outcome measures; the target children had to be at least 5 years old; and the target children must not have been selected on the basis of a diagnosis of a substance abuse disorder.

Treatment interventions for substance abuse among adolescents were not reviewed in this guideline because this problem falls outside the definition of prevention used here (see the earlier section, Definitions Used in This Guideline). For the purposes of this guideline, however, programs that treat substance abuse problems of parents in a family setting are considered to be prevention strategies, because they serve to reduce the risk of substance abuse in the family's children.

In summary, this guideline does not review and analyze all family-centered approaches to preventing substance abuse among youth. Neither does this guideline provide an

exhaustive review of all of the many types of practice programs currently in use. Rather, it reviews and analyzes a group of family-centered prevention approaches for which there is sufficient research and practice evidence to evaluate and from which to learn. Ideally, this information can help policymakers and decisionmakers, practitioners, and researchers make informed decisions regarding family-centered substance abuse prevention programs.

The process of developing this guideline series is based on recognition of the importance of the relationship between research and practice—and that substance abuse research and practice greatly impact one another. It also illustrates that in some areas, research is more advanced than prevention practice, but in other areas, research must catch up. Most important, developing the PEPS guidelines reemphasizes the need for an ongoing dialog between research and practice and hence, between researchers and practitioners.

REFERENCES

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Gordon, R. (1983). An operational classification of disease prevention. *Public Health Reports, 98*(2), 107–109.

Gordon, R. (1987). An operational classification of disease prevention. In J. A. Steinberg & M. M. Silverman (Eds.). *Preventing mental disorders.* (DHHS Publication No. ADM 87-1492, (pp. 20–26). Rockville, MD: U.S. Department of Health and Human Services.

Institute of Medicine. (1994). *Reducing risks for mental disorders: Frontiers for preventive intervention research.* (P. J. Mrazek & R. J. Haggerty, Eds.) Washington, DC: National Academy Press.

Windsor, R., Baranowski, T., Clark, N., & Cutter, G. (1994). *Evaluation of health promotion, health education, and disease prevention programs.* Mountain View, CA: Mayfield Publishing.

1 Substance Abuse Problems and the Status of the American Family

CHAPTER 1: Substance Abuse Problems and the Status of the American Family

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APPENDIXES

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1 Substance Abuse Problems and the Status of the American Family

Substance abuse, which has been called the number one preventable health problem in the United States (Robert Wood Johnson Foundation, 1993), places tremendous psychological and financial burdens on families. Because it is directly associated with emotional and physical problems, substance abuse often results in family disruption, financial problems, lost productivity, unemployment, and crime or legal problems (Liddle & Dakof, 1995).

Many of the recent changes in American society have created stressors that place families at increased risk for substance abuse.

Many of the changes that have taken place in American society in recent decades have created and perpetuated stressors for families. These stressors create an environment that places many children and adults at high risk for substance abuse. The fact that many of the adults who abuse substances are parents results in important implications for the health and well-being of their children.

An examination of these stressors and the patterns and trends of substance use in American society can provide perspective on the scope of the challenges facing families today. Therefore, this chapter presents detailed information on the breadth and extent of substance use in the United States, including current trends among youth and women. An overview of some of the changes that affect families, such as economic status, family structure, and the rates of violent crimes, is also presented. Chapter 2 expands and elaborates on this discussion in terms of factors that have been identified as increasing children's risk of developing substance abuse problems in their

later years. Chapter 4 applies practical aspects of this information by describing ways to address substance abuse problems in the community.

Many of the statistics presented here to describe the prevalence of substance use and its consequences are derived from standardized national surveys. A description of the survey methods used and the populations surveyed are provided in exhibit 1-1.

SUBSTANCE ABUSE IN THE UNITED STATES: THE EXTENT OF THE PROBLEM

"There are more deaths, illnesses, and disabilities from substance abuse than from any other preventable health condition. Of the two million U.S. deaths each year, more than one in four is attributable to alcohol, illicit drug, or tobacco use."

(Robert Wood Johnson Foundation, 1993, p. 8)

Although current rates of substance abuse in the United States are substantially lower than during the late 1970s, in the past few years there have been some reversals of this trend. This is particularly true among certain subgroups, such as adolescents, and in relation to certain drugs, such as marijuana. Irrespective of trends and fluctuations, the use of alcohol, tobacco, and illicit drugs is widespread in our society and is associated with an increased risk for a variety of health problems.

Patterns of Substance Use in the General Population

The number of current users of any illicit drug has declined from over 25 million to 13 million since 1979—a decline of nearly 50 percent. Changes in cocaine use have contributed to this trend. For example, the number of current users of cocaine among households has decreased from a peak of 5.7 million users in 1985 to 1.7 million in 1996—a decline of 70 percent (Substance Abuse and Mental Health Services Administration [SAMHSA], 1997a). Also, the current use of marijuana is down from 23.8 million users in 1979 to 10.1 million in 1996, a decline of 58 percent (SAMHSA, 1997a). Figure 1-1 illustrates the estimates of past-month substance use among Americans aged 12 years and older during the period from 1979 through 1996 (SAMHSA, 1997a).

The National Household Survey on Drug Abuse provides estimates of the prevalence of use of a variety of drugs among the general population. The following 1996 survey results highlight the prevalence of substance use within the past month, generally considered a measure of current use (SAMHSA, 1997b):

- *Illicit drug use*—An estimated 13 million Americans report using any illicit drug within the past month. (The number of current illicit drug users was at its highest level in 1979, with 25 million users.)
- *Cocaine use*—An estimated 1.75 million Americans report using cocaine within the past month. This is a decrease from a peak of 5.7 million in 1985.
- *Heroin use*—Approximately 216,000 Americans report using heroin within the past month, an increase from 68,000 in 1993.

EXHIBIT 1-1: Sources of Information on Substance Abuse

This chapter presents information based in part on standardized and regularly administered national surveys sponsored by the Federal Government to monitor trends of substance use in the United States.

General Population

- The **National Household Survey on Drug Abuse (NHSDA)** began collecting information on the use of alcohol, cigarettes, and illicit drugs in 1971 from a household sample that has subsequently been expanded to include the civilian noninstitutionalized U.S. population 12 years of age and over. Until 1991, the NHSDA was conducted under the purview of the National Institute on Drug Abuse (NIDA); in 1992, this responsibility was assumed by the Substance Abuse and Mental Health Services Administration.

Youth

- The **Monitoring the Future Study** is an annual school survey conducted each spring by the University of Michigan Institute for Social Research and is sponsored by NIDA. Until 1991, the stratified, random probability sample comprised only high school seniors; after 1991, the survey was expanded to include 8th and 10th graders.
- The **Youth Risk Behavior Surveillance System (YRBSS)** collects information from a representative sample of youth aged 12 to 21 years. Youth are surveyed on six categories of risk behaviors that contribute to the leading causes of morbidity and mortality in the United States, including use of alcohol, tobacco, marijuana, and cocaine. This survey began in 1990 under the sponsorship of the Centers for Disease Control and Prevention. Because the sensitive data collection procedures emphasize privacy, rates of substance use reported in the YRBSS are generally higher than those in other surveys.

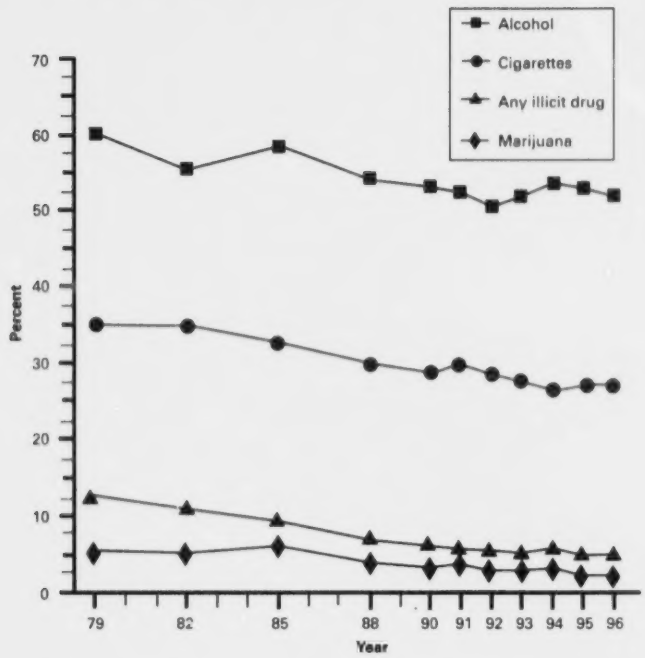
Women

The **National Pregnancy and Health Survey** was initiated with funding from NIDA in 1992–1993 to provide information on the extent to which a random-probability sample of women who had just given birth to a live infant had used substances during pregnancy or during the 3 months before conception.

Criminal Offenders

The **Survey of Inmates of Local Jails** and the **Survey of Inmates of State Correctional Facilities** are sponsored by the Bureau of Justice Statistics to collect information on the use of drugs by offenders in the month before the index crime for which a conviction was obtained.

FIGURE 1-1: ESTIMATE OF PAST-MONTH SUBSTANCE USE AMONG U.S. POPULATION 12 YEARS AND OLDER, 1979–1996



Source: Substance Abuse and Mental Health Services Administration. *(1997a). Preliminary estimates from the 1996 National Household Survey on Drug Abuse.* Rockville, MD: Author, Office of Applied Studies.

- *Alcohol use*—An estimated 109 million Americans aged 12 and older report using alcohol in the past month. About 32 million engaged in binge drinking (five or more drinks on at least one occasion in the past month), and about 11 million were heavy drinkers (five or more drinks per occasion on 5 days or more in the past 30 days).
- *Cigarette use*—An estimated 62 million Americans were current smokers in 1996. This represents a smoking rate of 29 percent.

The effects of such substance use are seen in high rates of health problems, ranging from sexually transmitted diseases (STDs) to accidents and injuries (Kann et al., 1996). Dependence on alcohol and other drugs is also associated with psychiatric problems, including depression, anxiety, and antisocial personality disorder. The problems correlated with specific drugs are described in the following sections.

Alcohol

Although definitions vary, the National Health Interview Survey defines heavy drinkers as those who consume 2 or more alcoholic beverages per day or 14 or more per

week. Chronic heavy use of alcohol is associated with liver disease, cancer, cardiovascular disease, and neurologic effects (blackouts, dementia, seizures, and hallucinations).

Alcohol is a factor in about half of all fatalities from motor vehicle crashes, homicides, and suicides in the United States. Families of heavy drinkers are more likely than others to be characterized by violence between spouses, child abuse, and a higher than average likelihood of raising children who themselves become heavy drinkers. Children in alcoholic families often exhibit emotional and adjustment difficulties, many of which are caused by the stress of living as children of alcoholic parents. These difficulties include aggressive behaviors, conduct problems, difficulties with peers, hyperactivity, and poor school performance (Robert Wood Johnson Foundation, 1993). Other problems are caused by serious conditions related to fetal alcohol syndrome, which is linked to alcohol consumption during pregnancy.

Tobacco

Tobacco use is the single most preventable cause of premature death in the United States. Use of tobacco products jeopardizes health in many ways and substantially increases health care costs. Tobacco-related illnesses are responsible for one in every five deaths in the United States and are a direct contributor to four of the five leading causes of death: Cardiovascular disease, cancer, cerebrovascular disease, and chronic obstructive pulmonary disease (U.S. Department of Health and Human Services [DHHS], 1993). Children whose parents smoke have more health problems than others, including respiratory infections and decreased lung growth (Robert Wood Johnson Foundation, 1993). Pregnant women who smoke increase their risk of miscarrying, delivering low-birth-weight babies, and experiencing obstetric complications (American College of Obstetricians and Gynecologists [ACOG], 1994; DHHS, 1991, 1993).

Illicit Drugs

In its survey of illicit drug use, the National Household Survey on Drug Abuse (NHSDA) includes marijuana and hashish; cocaine, including crack cocaine; inhalants; hallucinogens; heroin; and psychotherapeutic agents when used for nonmedical purposes. The 1996 NHSDA showed marijuana to be the illicit drug most commonly used in the general population, reported by about 80 percent of those aged 12 years and older who acknowledged illicit drug use within the month preceding the survey (SAMHSA, 1997a). Weekly cocaine use (defined in the NHSDA as use on 51 or more days within the past year) has remained relatively steady at a rate of 0.2 to 0.4 percent since 1985 (SAMHSA, 1997a, 1995a). Similarly, the rates for use of inhalants and nonmedical use of stimulants, sedatives, and tranquilizers have generally remained stable or declined in the last few years (SAMHSA, 1997a). While

low, the rate of past-month use of hallucinogens doubled between 1994 (1.1 percent) and 1996 (2 percent).

Cocaine use can result in myocardial infarction, cardiac arrhythmia, and stroke and can lead to eating disorders. Crack cocaine use has been associated with an increase in STD rates among both adolescents and adults (DHHS, 1993; Johnson & Muffler, 1992). In pregnant women, cocaine can affect the fetus, increasing the risk of spontaneous abortion, pregnancy complications, fetal death, and congenital malformations (ACOG, 1994; Bingol, Fuchs, Diaz, Stone, & Gromisch, 1987; Handler, Kistin, Davis, & Ferre, 1991). Because they are highly addictive, cocaine and crack cocaine add significantly to the caseloads of drug treatment programs, the criminal justice system, public health facilities, and child protective custody and foster care systems.

Use of Multiple Drugs

Abuse of one substance seems to increase the likelihood for abuse of another. In the 1996 NHSDA, one-third of heavy drinkers also reported recent use of illicit drugs, compared with 5.3 percent of current but not heavy users of alcohol and only 1.9 percent of persons currently abstaining from alcohol (SAMHSA, 1997a). Similarly, current smokers are more likely than nonsmokers both to drink heavily and to use illicit drugs (SAMHSA, 1997a, 1995a).

Multiple Drug Use

- Among people aged 12 years and older who smoked, approximately 13 percent reported consuming five or more drinks on 5 or more days in the previous month, and 15 percent were current users of illicit drugs (SAMHSA, 1997a).
- In contrast, among nonsmokers aged 12 years and older, just 3 percent were heavy drinkers, and 3 percent were current users of illicit drugs (SAMHSA, 1997a).
- Use of combinations of alcohol, tobacco, and illicit drugs by pregnant women can make it difficult to determine the effects of individual drugs on the fetus, reducing the ability to prevent and treat health problems during pregnancy and after birth (DHHS, 1993).

Patterns of Substance Abuse Among Women

Although substance abuse among women is less prevalent than among men, the health consequences for women may be greater. In particular, use and abuse of addictive substances by women in their childbearing years harms their own health and well-being as well as that of their children.

In many families, women are the primary caretakers of children, and the proportion of households headed by females is increasing. Substance abuse during a woman's childbearing years endangers her ability to successfully protect and nurture her children, however much she may wish to do so. The result is that children may be neglected, otherwise abused, or placed in foster care. Fears of criminal prosecution and of losing their children sometimes deter women with substance abuse problems from seeking treatment (Center for Substance Abuse Treatment, 1993).

Alcohol

Women who consume alcohol have historically been more stigmatized for it than men. As a result, many women, as well as clinicians and researchers, have been unwilling to acknowledge the existence of alcoholism in women. This has made it difficult to estimate the extent of the problem (Jacobs Institute of Women's Health, 1995). National surveys and studies that now include women are providing significant information about their use of alcohol. It is estimated that more than 2 million women in this country are heavy drinkers, and in the 1996 NHSDA, 44 percent of women reported use of alcohol within the past month (SAMHSA, 1997a).

Women are less likely than men to consume alcohol heavily: In the 1996 NHSDA, 9 percent of all men were estimated to be heavy drinkers, compared with only 2 percent of women (SAMHSA, 1997a). Even so, there is evidence that women who drink alcohol in amounts comparable to those consumed by men are likely to be more impaired, both immediately and over the long term (Jacobs Institute of Women's Health, 1995). Smaller quantities of alcohol are required to produce intoxication in women than in men because the body water content of women tends to be lower than that of men, resulting in more rapid alcohol diffusion (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 1990a; National Institute on Drug Abuse [NIDA], 1993).

Tobacco

Although the rate of cigarette smoking has decreased overall in recent years for both men and women, this decline has been smaller among women. Smoking within the past month by females aged 12 to 17 years remained between 9.5 and 11.2 percent between 1988 and 1993, but has been increasing since 1992 (SAMHSA, 1993, 1994, 1995b). Among women over 12 years of age, 27 percent report smoking cigarettes within the past month (SAMHSA, 1997b).

Women who currently smoke are more likely than others to be separated or divorced, to have no more than a high school education, and to have a low income (Centers for Disease Control and Prevention [CDC] 1997b; Schoenborn & Boyd, 1989). In 1994, there were approximately 170,000 new cases of lung cancer in the United States, of which roughly 70,000 were in women (Friedberg & Kaiser, 1997). Lung cancer now exceeds breast cancer as the leading cause of cancer death in women (National Center for Health Statistics [NCHS], 1995).

Alcohol and Women

- Over 16 percent of pregnant women report drinking during the preceding month (Centers for Disease Control and Prevention, 1997a).
- A longitudinal study of alcoholic women estimated that their life span is reduced by 15 years because of disease, alcohol-related incidents, and suicides (Smith, Cloninger, & Bradford, 1983).
- Alcohol use during pregnancy has been identified as the leading preventable cause of birth defects (DHHS, 1991).

Illicit Drugs

Among females aged 12 years and older, 4.2 percent report using any illicit drug during the past month. Self-report of any illicit drug use is greatest among females aged 18 through 25 years (11 percent) and notable among those aged 12 through 17 years (8.9 percent) (SAMHSA, 1997b). An estimated 3.2 percent of pregnant women report using illicit drugs within the past month. However, women who gave birth within the past 2 years had a rate of 6.2 percent, suggesting that many women resume their drug use after giving birth. Similar patterns are seen for alcohol and cigarette use (SAMHSA, 1997a). The rates of self-report for using any illicit drug are higher among males for every age group and for all patterns (ever, past year, and past month) (SAMHSA, 1997b).

Psychotherapeutic drugs, including prescription stimulants, sedatives, tranquilizers, and analgesics, may be used nonmedically or in a manner inconsistent with prescribed use. These medications are often prescribed for legitimate therapeutic purposes, such as treatment of depression and anxiety. However, among women, the 1996 estimated prevalence rate for nonmedical use of any psychotherapeutic medication was 8 percent for lifetime use, 2.5 percent for past-year use, and 1.1 percent for past-month use (SAMHSA, 1997b). Among women who report any nonmedical use of psychotherapeutic medications, 0.6 percent report analgesic use, 0.4 percent report using tranquilizers, 0.1 percent report using sedatives, and 0.3 percent report using stimulants within the past month.

Prenatal Drug Exposure

Maternal substance use, notably the use of alcohol, cigarettes, marijuana, and cocaine, can have significant effects on the health of the newborn and possibly the older child as well. Most researchers and practitioners acknowledge, however, that effective nurturing and a supportive environment that addresses other risk factors in a child's life can make a significant difference for the child who was exposed to substance abuse in utero (Beckwith et al., 1994; Chasnoff, 1992).

Obstetric complications and poor pregnancy outcomes due to prenatal substance abuse have been well documented, as follows:

- Smoking during pregnancy is known to increase the risk of low birth weight (less than 2,500 grams), preterm birth (before 37 weeks), and miscarriage (pregnancy loss before 20 weeks) (ACOG, 1994; DHHS, 1991).
- Infants whose mothers used heroin or tobacco during pregnancy are at increased risk for sudden infant death syndrome (ACOG, 1994; Chasnoff, 1992).

- Heavy consumption of alcohol during pregnancy is associated with an increased risk of fetal alcohol syndrome, a condition comprising a constellation of physical and neurological deficits that includes growth retardation, facial deformities, and mental retardation (ACOG, 1994).
- The use of illicit drugs, particularly cocaine, has been linked to impaired fetal growth and neurobehavioral deficits (ACOG, 1994; Chasnoff, 1992).

Cigarette smoking in particular increases the likelihood of low birth weight and obstetric complications, such as problems with the placenta and preterm delivery (ACOG, 1994; DHHS, 1991). Older children of women who smoke are also at risk for health problems because of the effects of passive smoking, which contributes to serious upper respiratory problems among infants and young children (National Research Council, 1986; Office on Smoking and Health [OSH], 1986). Some data also suggest an association between maternal smoking (both during and after pregnancy) and an increased risk of sudden infant death syndrome (Schoendorf & Kiely, 1992). Quitting smoking before 16 weeks of pregnancy appears to offset many of these risks (ACOG, 1994).

Research on the possibility and extent of long-term effects of prenatal drug exposure is still in its early stages. Some research documentation exists to support the theory that problems in social, language, and cognitive development may appear as the child who was exposed in utero to drugs (particularly cocaine) grows older (Beckwith et al., 1994; Chasnoff, 1992; Chasnoff, Griffith, Freier, & Murray, 1992). Neurobehavioral problems in cocaine-exposed infants have to do primarily with motor behavior (reflexes and motor control and coordination), state control (the ability to move appropriately through the various states of arousal in response to outside stimuli), and orientation (the ability to interact actively with the external environment). Many of these infants exhibit irritability, sleeplessness, and difficulty in being nurtured (Chasnoff, 1992).

The developmental problems seen in older drug-exposed children appear to reflect the self-regulatory problems observed in the newborn. These children have difficulty regulating their behavior in response to complex stimuli and have low thresholds for overstimulation and frustration. They may feel overwhelmed by environmental stimuli, to which they may respond by withdrawing and/or losing control of their behavior, exhibiting hyperactivity and impulsiveness (Chasnoff et al., 1992).

In children exposed prenatally to cocaine and other drugs, Chasnoff et al. (1992) found that smaller head circumferences observed in infancy persisted through 3 years of age. One-third of drug-exposed children had delayed normal language develop-

ment and problems in self-regulation and attention. Beckwith et al. (1994) studied a group of infants matched for similar family and socioeconomic backgrounds whose mothers had used phencyclidine (PCP) and/or cocaine during their pregnancies. The drug-exposed infants showed greater persistence of immature play strategies (patterns of disorganized and disruptive free play), less sustained attention, more deviant behaviors, and fewer positive social interactions than infants who had no prenatal drug exposure.

Researchers agree that, despite the possibility of long-term effects, protective factors can play a significant role in ameliorating the adverse consequences of maternal substance abuse. In their study, Beckwith et al. (1994) found that 25 percent of drug-exposed children were indistinguishable from control children in their play patterns. These drug-exposed children were found to have mitigating effects in their environment that helped counteract the adverse consequences of prenatal drug exposure. Mitigating factors included having mothers with more maternal sensitivity and responsiveness in the first year of life, having better attachment relationships to the primary caregiver, and having mothers with more years of education than other mothers. These results indicate the importance of a nurturing environment in protecting against the potentially debilitating effects of in utero exposure to drugs.

Patterns and Consequences of Use of Specific Substances by Youth

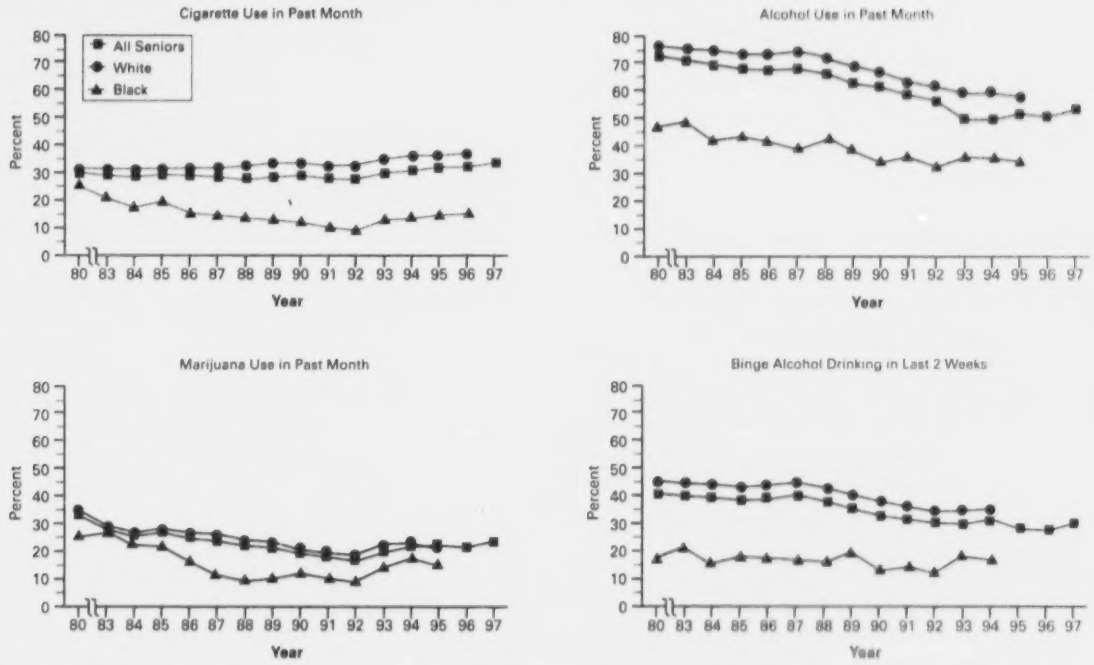
Adolescence, typically a time of exploration in many areas of life, is a period when many young people first experiment with substance use. Young people today face increasingly complicated demands and expectations as they make the transition through adolescence to adulthood (Carnegie Council on Adolescent Development, 1995). Combined with social pressure to use drugs, these challenges are increasingly influencing many preteens and adolescents to experiment with drugs of abuse. The use of certain drugs, such as marijuana, among adolescents increased during the mid-1990s, but seems to be leveling off (see figure 1-2).

Alcohol

As in the total population, alcohol is the drug most frequently used by youth aged 12 to 17 years. By the 12th grade, most students (80 percent) have tried alcohol at least once. Slightly more than half of high school seniors report drinking within the past month, a fairly consistent pattern during the 1990s. During the 1970s and 1980s, the rates were substantially higher (NIDA, 1996). Even among 8th-grade students, more than half have tried alcohol, and a quarter have used alcohol within the past month (NIDA, 1996).

Chronic use of alcohol during adolescence can jeopardize physical, emotional, and social development during these formative years and compromise the transition to

FIGURE 1-2: RECENT USE OF SELECTED DRUGS BY HIGH SCHOOL SENIORS


Cigarette Use in Past Month
All Seniors
White
Black
Percent
Year
Alcohol Use in Past Month
Marijuana Use in Past Month
Binge Alcohol Drinking in Last 2 Weeks
80 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97

Source: NIDA, 1996; University of Michigan Institute for Social Research, 1997. Note that outcomes by ethnicity are unavailable for recent years.

adulthood. Even infrequent intoxication can have acute consequences; the alcohol-related death rate is disproportionately high for those aged 15 to 24 years.

Tobacco

Cigarette use among high school seniors peaked in 1976 and 1977, dropped substantially until 1982, remained stable until about 1992, and has been gradually but steadily rising since then. Among high school seniors in 1997, 65 percent report having ever smoked a cigarette, 37 percent report smoking a cigarette within the past month, 25 percent report daily cigarette use, and 14 percent report smoking a half pack of cigarettes or more daily (University of Michigan Institute for Social Research, 1997). Most chronic smokers started when they were young teenagers, and many are starting even earlier. About one-quarter of high school seniors who have ever smoked report they smoked their first cigarette by the time they were in 6th grade (OSH, 1994). The many factors that encourage young people to begin using tobacco include peer pressure, parental and sibling smoking behavior, advertising and promotion by the tobacco industry, and the easy availability of cigarettes (OSH, 1994). Adolescents who begin smoking at young ages are at increased risk of

Heavy Drinking and Youth

- The rates of youth who consumed five or more drinks in a row within the past week are 15 percent, 24 percent, and 30 percent for students in the 8th, 10th, and 12th grades, respectively (University of Michigan Institute for Social Research, 1997).
- During the 1990s, a third or more of high school seniors report having been drunk during the past month (NIDA, 1996; University of Michigan Institute for Social Research, 1997; SAMHSA, 1995a, 1995b).

becoming regular, heavy smokers and of contracting or dying from tobacco-related illness. Adolescent smokers also have higher rates of cough, shortness of breath, and other indicators of poor physical fitness than do nonsmokers (DHHS, 1993; OSH, 1994).

Inhalants

Every year, preteens and teenagers die of causes related to inhalation of substances such as lighter fluid, fabric protector spray, paint thinner, nail polish remover, and gasoline. Inhaling fumes from these substances may provide a quick high, with rapid dissipation and minimal hangover. Most inhalant abusers do not die of this practice, but it is impossible to predict when an otherwise healthy individual will suffer fatal consequences, even from a single episode of inhalant use. Inhalants can cause severe depression of the central nervous system, leading to cessation of breathing, cardiac arrest, coma, and death.

Chronic abuse of some inhaled substances, including glues, aerosols, and solvents, is associated with neurological damage and injury to the liver and kidneys. Some of the most deadly inhalants are the most widely used because they are found in many household products. Because they are inexpensive and widely available, they can be obtained by the very poor and the very young. In fact, inhalant use is highest during early adolescence (SAMHSA, 1995b).

Illicit Drugs

The rates of overall illicit drug use among youth declined substantially between the late 1970s and the early 1990s. Although current rates are generally half of the rates seen at the 1978–1979 peak, there was an increase in youth reporting use of any illicit drug during the 1990s. This trend appears to have leveled off (NIDA, 1996; University of Michigan Institute for Social Research, 1997). There have been different trends in relation to such illicit drugs as lysergic acid diethylamide (LSD) and other hallucinogens; tranquilizers and sedatives; stimulants, including methamphetamines and "Ecstasy" (MDMA, or 3-4-methylenedioxymethamphetamine); and cocaine.

Inhalant Use and Youth

- Inhalants are more popular among younger teens than older teens.
- Youth in 1997 reporting any inhalant use in the prior 12 months were 12 percent, 9 percent, and 7 percent in grades 8, 10, and 12, respectively (University of Michigan Institute for Social Research, 1997).

Marijuana. Of particular concern is the pattern of marijuana use by youth. After 6 years of steady increases, marijuana use

leveled off in 1997 among 8th grade students. Among high school students as a whole, the decelerating trend of marijuana use observed since 1985 started to reverse in 1992 and has continued on that trajectory. In 1997, for the first time in 6 years, there was an increase among 8th grade students in disapproval of marijuana use, and there was little further erosion of these attitudes among older students (University of Michigan Institute for Social Research, 1997).

Illicit Drug Use and Youth

In 1997, one-third of 8th graders, almost half of 10th graders, and more than half of 12th graders reported that they had used an illicit substance at some time in their lives (University of Michigan Institute for Social Research, 1997).

Regular use of marijuana may impair adolescents' ability to think, listen, express themselves, solve problems, and form abstract concepts. There is some evidence that students do not adequately acquire or retain knowledge when experiencing the effects of marijuana, and their motivation to learn may be altered (Nicholi, 1983). Further, marijuana smoking may have the same long-term consequences for the respiratory system, particularly pulmonary function, as does cigarette smoking (DHHS, 1993).

Hallucinogens, Cocaine, Heroin, and Prescription Drugs. Experimentation with and more frequent use of illicit drugs other than marijuana is infrequent among youth. The rates of high school seniors who report using a hallucinogen during the past month has fluctuated between 2 and 4 percent during the 1975 through 1997 period. However, among high school seniors, rates of lifetime use of hallucinogens have risen from about 10 percent during the early 1990s to 15 percent in 1997, signaling an increase in experimentation (University of Michigan Institute for Social Research, 1997).

Intoxication with hallucinogens and PCP has been associated with unintentional injury. Use of cocaine and crack cocaine has never been prevalent among youth in school, but rates of experimentation with cocaine have been steadily (although modestly) increasing during the 1990s. Rates of heroin use among students are quite low, but they have risen significantly during the 1990s. Heroin is sometimes smoked in conjunction with cocaine and crack cocaine to prolong the euphoric effect. Also emerging in many areas of the country is the abuse of combinations of prescription drugs and of potent tranquilizers such as Rohypnol.

Designer Drugs. Several sources indicate an increase in the use of so-called "designer drugs" (Office of National Drug Control Policy [ONDCP], 1995). These synthetic analogues of controlled substances are manufactured illegally for the

Illicit Drug Use and High School Seniors

- **In 1997, 15 percent of high school seniors reported having tried hallucinogens at least once.**
- **Almost 9 percent of seniors reported having tried cocaine at least once.**
- **Slightly more than 2 percent of seniors reported having tried heroin at least once (University of Michigan Institute for Social Research, 1997).**

specific purpose of abuse. They are created by making minor changes in the molecular structure of substances such as amphetamines (McCormick, 1989). These substances, sometimes termed "illicit synthetics," include 3-methylfentanyl, methamphetamine, PCP, and Ecstasy.

Because many of the illicit synthetics are clandestinely manufactured, contamination is relatively common and in some instances has been linked to neurodegenerative side effects (McCormick, 1989). Further, risk of overdose is pronounced because of their extreme potency; some are hundreds or even thousands of times stronger than the substance from which they are derived (Seymour, Smith, Inaba, & Landry, 1989).

Some illicit synthetics are typically used by teens and young adults (ONDCP, 1995). Several sources indicate that, because of their relatively easy availability and low cost, their use is expanding in major urban areas of the United States (ONDCP, 1995). Because some illicit synthetics are not included in national surveys, the prevalence of their use is difficult to determine. However, in 1997, the lifetime prevalence of Ecstasy was 7, 6, and 3 percent among students in the 12th, 10th, and 8th grades, respectively (University of Michigan Institute for Social Research, 1997).

General Risks Associated With Substance Abuse Among Youth

Young people face unique risks related to substance abuse, in both the long and the short term. The effects of various substances can be more potent in adolescents than in adults because of their generally smaller body size and lower body weight. For this reason, they are at serious risk for a number of direct and indirect consequences, including intentional and unintentional injury. Three in four deaths in this age group are attributable to causes that are known to have a high association with alcohol use: motor vehicle crashes (35 percent) and other unintentional causes of injury (10 percent), homicide (17 percent), and suicide (13 percent) (DHHS, 1993). Additional risks relate to increased sexual activity, which can be the result of lowered inhibition brought on by the use of alcohol and illicit drugs (DHHS, 1993). Still other potential consequences are physical and emotional problems, learning disorders, poor school performance, and dropping out of school.

Early Sexual Activity

Beginning sexual activity at an early age is increasingly common among today's youth. CDC notes that more than half of all high school students have had sexual intercourse at least once, more than one-third have had sexual intercourse within the past 3 months, and nearly one-fourth have had sexual intercourse with four or more sex partners (Kann et al., 1996). Among the potential consequences of early sexual ac-

tivity are contracting a sexually transmitted disease, including infection with the human immunodeficiency virus (HIV).

Sexually Transmitted Diseases. Of the 12 million new cases of STDs diagnosed each year, 86 percent occur in 15- to 29-year-olds (DHHS, 1993). Because of the nature of the cervical tissue during adolescence, girls who are sexually active are particularly susceptible to STDs. Among the most common STDs in young females are infections with chlamydia and human papillomavirus (HPV), which may cause genital warts. Some types of STDs are linked to an increased risk of cervical cancer.

Sex and Youth

- More than half of all high school students have experienced sexual intercourse. Approximately 40 percent of girls and 36 percent of boys experienced sexual intercourse within the past 3 months.
- Approximately one-fourth of high school students used alcohol during their last sexual intercourse (CDC, 1996).

HIV and AIDS. Adolescents are more likely to acquire HIV infection through heterosexual contact than through other modes of transmission (DHHS, 1993). Two-thirds of cases of acquired immunodeficiency syndrome (AIDS) in adolescents result from heterosexual contact. In 1994, the death rate from AIDS in 13- to 19-year-olds was 186 per 100,000 for males and 134 per 100,000 for females (NCHS, 1995). Among 13-year-olds, injectable drug use accounts for 22 percent of cases of HIV infection (DHHS, 1993). Seventeen percent of AIDS cases in 13- to 24-year-olds result from the use of injectable drugs (DHHS, 1993). AIDS among injected-drug users is the fastest growing cause of death among substance abusers: Two-thirds of new AIDS cases occur among injected-drug users and their sexual contacts (Robert Wood Johnson Foundation, 1993).

Unintended Pregnancy. Sexual activity in young females carries a particular risk for unintended pregnancy, which in turn increases the risk of induced abortion and death from childbearing. Approximately 40 percent of teenage pregnancies end in induced abortion (DHHS, 1993). In 1992, there were 61 births to every 1,000 females aged 15 to 19 years and 1.4 births per 1,000 females aged 10 to 14 years (NCHS, 1995). Childbearing at these young ages increases the risk of obstetric complications and maternal and fetal death. In 1992, 7 of every 100,000 live births to females under 20 years of age resulted in the death of the mother (NCHS, 1995).

Pregnancy and Youth

- Each year since 1974, more than 1 million adolescents have become pregnant.
- Females under 20 years of age account for about one-fifth of abortions and 13 percent of births.
- Adolescent mothers are at increased risk for pregnancy complications, and their children are at increased risk for physical disability and infant death (CDC, 1997c; DHHS, 1993).

Dual Diagnosis

In the late 1970s, mental health practitioners across the country were increasingly seeing young adults who were unresponsive to standard treatments for substance abuse. Treatment professionals became more aware of the relationship between substance abuse and psychiatric conditions, recognizing that substance abuse can cause psychiatric symptoms and can mimic psychiatric disorders or lead to their development, provoke their reemergence, and worsen their severity. Heightened attention was paid to individuals with coexisting psychiatric and substance-related disorders, popularly known as "dual diagnosis." The already difficult problem of treating mental illness became even more complex because of substance abuse. Even comparatively mild use of drugs of abuse can make the treatment of mental illness extremely difficult (Pepper & Ryglewicz, 1984). The mental disorders with the highest lifetime prevalence are related to substance abuse (Bourdon, Rae, Locke, Narrow, & Reiger, 1992).

The Gateway Hypothesis

Just as initiation of tobacco use often precedes that of alcohol, initiation of alcohol use usually precedes that of marijuana. The fact that use of these substances often precedes the first use of other drugs suggests support for the "gateway" hypothesis, which posits that the use of alcohol and tobacco at an early age is associated with progression to illicit drug use and greater involvement with drugs at older ages (DHHS, 1993; Robins & Przybeck, 1985).

SUBSTANCE ABUSE: CRITICAL ISSUES FOR FAMILIES AND CHILDREN

Most Americans agree that the family is the central institution responsible for ensuring the safety of children and for providing the nurturing and guidance they need to become competent and contributing adults. In the last few decades, many changes have taken place in American society and in the characteristics of American family life. Some of these changes, such as widespread immunization programs, advances in medical technology, and more stringent safety regulations, are positive. Others, however, have contributed to the difficulties faced by parents in providing adequate nurturance and support for their children. Most families, including those under economic or other significant stressors, succeed in raising healthy children despite these difficulties. For some children, however, potential for a successful outcome plummets as family and community stresses escalate. Many children are raised in an environment that presents them with risks associated with substance abuse.

"Within our lifetime, dramatic changes have occurred in the structure of American families and of the workplace."

(Carnegie Council on Adolescent Development, 1995).

Risks for the Family

Effects of Economic Status and Employment

The gap between family incomes for the affluent and the poor has widened in the last decade. Inequalities of income are now greater than at any time since the 1930s, and poverty rates for children as a group have continued to rise steadily since the 1970s. Low socioeconomic status is associated with a number of threats to children's health. Mental retardation, learning disorders, emotional and behavioral problems, and vision and speech impairments are more prevalent among children living in poverty than among those at higher socioeconomic levels (DHHS, 1991).

Economic Deprivation. Poverty is also a known risk factor for antisocial behaviors, including substance abuse (Hawkins, Catalano, & Miller, 1992). For many economically deprived youth, drug trafficking and substance abuse become the only perceived options for breaking the cycle of poverty and obtaining the material goods and resources their parents cannot afford to give them. Additionally, neighborhoods where people have little attachment to or investment in the community, in which social institutions are not strong, and in which there is low surveillance of public places have higher than average rates of adult and juvenile crime and drug trafficking.

Changes in economic status over the past two decades have been felt by many families with dependent children. The poverty rate for African-American families has remained substantially higher than that for White and Hispanic families. However, poverty has been growing most rapidly in these latter groups: Over the past 20 years, the rate of increase in poverty has been greatest for White and Hispanic families with dependent children.

Very young children are particularly likely to be living in poor families. More than one in four children under 6 years of age lived in poverty in 1994 (Children's Defense Fund, 1996).

Homelessness. The rate of homelessness has increased more rapidly among families with young children than in any other group over the past 20 years; today, one in four homeless persons is a child under 18 years of age (Children's Defense Fund [CDF], 1995). Negative experiences during childhood, particularly poverty, residential instability (e.g., nonparental placement or housing problems), and family problems (e.g., adult substance abuse or physical or sexual abuse), have been found to be related to a child's risk of becoming a homeless adult (Koegel, Melamid, & Burnam, 1995).

Studies of the homeless reveal that these populations report rates of substance abuse that are up to 25 times higher than those for populations living in households (Breakey et al., 1989; Fors & Rojek, 1991). Homeless alcohol abusers are at a substantially increased risk of trauma, victimization, frostbite, and tuberculosis (NIAAA, 1990b).

Urine tests of residents of homeless shelters in New York City in 1992 revealed a 54 percent prevalence of recent cocaine use and a 20 percent prevalence of recent marijuana use (New York City Commission on the Homeless, 1992). Drug use by homeless and runaway youth in shelters in the southeast United States was two to seven times higher in comparison to school samples (Fors & Rojek, 1991).

Numbers of Mothers in the Work Force. Another change affecting American families at all income levels is the growing number of mothers in the work force. Most mothers' employment is necessary for their economic survival as well as for their self-esteem and future security. Unlike families of a previous generation, however, many families now face the difficulty of finding quality child care and have less time to spend with and monitor their children (Dishion & Loeber, 1985; Dishion, Andrews, & Crosby, 1995; Farrington, 1978; McCord, 1979; Patterson, Reid, & Dishion, 1992). About 70 percent of youngsters with working mothers are cared for by an adult outside the immediate family. The number of "latchkey children," who care for themselves after school hours, is also growing.

The costs of child care can be a cause of concern and stress for low-income families. Already under significant stress, these families spend on average more than 20 percent of their income on child care, and families below the poverty line spend an even larger portion of their income—27 percent—on child care (CDF, 1995).

Parents' concern about the quality of their children's care also contributes to the stress experienced by families. A 1995 study found that the quality of child care provided by most centers is poor to mediocre, and 12 percent of centers provide care so inadequate that it jeopardizes children's safety and development (CDF, 1996). Thirty-five percent of the family child care homes sampled in a Families and Work Institute survey were found likely to harm children's development because of poor-quality care (CDF, 1996).

Women, Work, and Children

- Approximately 70 percent of mothers were in the labor force (either working or looking for work) in 1996.
- Overall, 54 percent of mothers with children under 1 year old were in the labor force during 1996, while 63 percent of mothers with children 2 years of age were in the labor force.
- Approximately 50 percent of unmarried mothers with children under 1 year of age were in the labor force, while 56 percent of married mothers with children the same age were in the labor force in 1996 (Bureau of Labor Statistics, 1997).

Changes in Family Structure and Interactions

Changes in the structure of families and in the roles available to women have made it much more difficult for families to perform the traditional functions of nurturing and protecting children. In many cases, parents' time and opportunity for communicating with and supervising their children have also lessened. The degree to which families are unable to meet the basic developmental needs of their children, especially when this inability is manifested by incidents of maltreatment by parents or family members, has a direct correlation with adolescent substance abuse.

Single-Parent Families. One of the most frequently reported changes in families over the past two decades has been the increase in the number of children who live with a single parent. Children living in single-parent families are more likely to experience a number of negative outcomes. Some research has indicated that children in single-parent families are at greater risk of emotional problems and academic difficulties than those in intact two-parent families (Emery, 1988; McLanahan, 1988; McLanahan & Sandefur, 1994).

The growing number of single-parent households is due in part to the increasing proportion of disrupted marriages, which approaches 50 percent for those married before 1974 (NCHS, 1990). In addition to an increasing divorce rate, a major reason for the rise in single parenthood is childbearing by single women. In 1991 there were more than 1.2 million births to unmarried females, the highest number ever recorded in the United States (NCHS, 1993). However, the number and rate of births to unmarried women have since declined (Ventura, Martin, Curtin, & Matthews, 1997). A significant proportion of such births are to teenagers, 500,000 of whom give birth every year.

Teenage mothers face an above average risk of pregnancy complications, preterm birth, and low-birth-weight infants, and their infants are more likely to have physical disabilities and health problems than infants of older women (DHHS, 1993). Teen mothers are also more likely than are women in their 20s to receive either late prenatal care or none at all. Few young, single mothers are sufficiently mature or independent to assume the responsibilities of parenting. They are less likely than nonparent students to finish high school or to develop marketable skills. Female-headed households with dependent children have consistently experienced greater poverty than two-parent households. Within their peer group, single mothers are also more likely than others to be on welfare and to have entered into early marriages that end in divorce (CDF, 1995; National Commission on Children, 1991). The children of these mothers are themselves more likely than other children to become single parents at an early age (McLanahan & Sandefur, 1994).

Currently, 25 percent of children in this country live with only one parent (NCHS, 1994). Approximately three-quarters of these children experience poverty before they are 10 years old (CDF, 1995).

Single-parent families also face more difficulties in monitoring the activities of and spending time with their children. Monitoring of children has been shown to be a protective factor in preventing and reducing risks for substance abuse (Hawkins et al., 1992). Conversely, lack of maternal involvement in a child's life has been found to be a risk factor for his or her later substance abuse (Kandel & Andrews, 1987).

Child Abuse and Neglect. In 1993, 51 U.S. jurisdictions reported that more than 1 million children were found to be victims of maltreatment (National Center on Child

Abuse and Neglect, 1994). Included among the types of maltreatment reported were the following:

- Neglect—49 percent.
- Physical abuse—24 percent.
- Medical and emotional neglect and other forms of maltreatment—23 percent.
- Sexual abuse—14 percent.

Nearly 9 of every 10 perpetrators of child maltreatment investigated by child protective services agencies were a parent or other relative of the victim; parents accounted for 77 percent of perpetrators (National Center on Child Abuse and Neglect, 1994). In recent years, substance abuse by parents has come to be seen as a major cause of child abuse and neglect. Yet in 1994, only 11 States reported having any new initiatives focused on parental substance abuse and its relationship to child abuse (CDF, 1995).

Parental and Sibling Substance Abuse

When children are raised in a family with a history of alcoholism, their own risk of having substance abuse problems increases (Hawkins et al., 1992). When parents use illegal drugs, are heavy users of alcohol, or are tolerant of their children's use of drugs, the children are more likely than otherwise to become substance abusers in adolescence.

Siblings are also role models for children's behavior. One study found that older brothers' drug behavior and attitudes were more strongly related to younger brothers' use than was parental modeling of substance abuse (Brook, Whiteman, Gordon, & Brook, 1988). (See chapter 2 for a discussion of family-related risk factors.)

Risks for Children

Physical and Mental Health of Children

Children's health in the United States has apparently improved over the last several decades, as measured by reductions in infectious disease and infant mortality, increasing access to health care and immunizations, and more stringent safety regulations, such as those for car safety seats and safety belts. However, there are offsetting negative trends in the proportion of women receiving inadequate prenatal care, in the number of low-birth-weight babies, and in the number of pediatric cases of AIDS and injuries. In addition, wide disparities persist along lines of race and income in overall health status and some other child health indicators (e.g., rates of infant mortality, unintentional injury, immunization and hospitalization, and lead poisoning).

Physical Health. A large percentage of the health problems in children currently seen by pediatricians involve developmental delay, learning difficulties, and emotional and behavioral problems. These conditions and others, including asthma, allergies, and eating disorders, were labeled "the new morbidity of childhood" in the mid-1970s (Haggerty, Roghmann, & Pless, 1975). Because these conditions may also have a psychosocial component, they do not easily fit into the framework of physical disease models. Some of these psychosocial problems have been identified as risk factors for substance abuse in adolescence (see chapter 2). The increasing prevalence of these conditions makes them of growing concern to health professionals and policymakers.

Mental Health. Increases in childhood behavioral disorders have been attributed to the growing proportions of children who experience parental divorce, poor mother-infant bonding, or poor infant stimulation; who were born outside of marriage; or who are raised in conflict-filled, low-income, low-education, and/or single-parent households. The etiology of most behavioral disorders, however, is not well understood. When considered with chronic physical conditions that are common in childhood, behavioral disorders clearly rank among the most prevalent health conditions (CDC, 1994a).

In 1993, nearly 20 percent of children aged 3 to 17 years were diagnosed as having a developmental delay, a learning disability, or an emotional or behavioral problem (CDC, 1994a).

Increasingly, parents and educational systems are reporting that behavior problems in children and adolescents are major disruptive forces in the home and at school. These behavior problems may stem from the physical or mental health problems of children or from stresses that interfere with normal progression through childhood developmental stages. In many cases these factors are intertwined, and biological or genetic conditions set the stage for behavioral problems that may need special attention. Serious behavior problems in children often precede and are linked to substance abuse. (Chapter 2 provides a discussion of developmental pathways that may lead to adolescent substance abuse.) There is also concern that, although the behavioral problems of middle-class White youth are often handled within the mental health system, the same sorts of problems among low-income African-American or Hispanic youths often go untreated, only to be dealt with eventually by the criminal justice system (Office of Technology Assessment, 1986).

Suicide. Between 1950 and 1989, suicides among those 15 to 19 years of age quadrupled, from 2.7 to 11.1 per 100,000 (CDC, 1986a, 1995). Suicide is the third leading cause of death among 15- to 24-year-olds (Hammett, Powell, O'Carroll, & Clanton, 1992). Substance abuse is associated with this rapid escalation in the suicide rate, as are mental illness; impulsive, aggressive, and antisocial behaviors; ad-

verse family influences; severe stress in school or social life; and sociocultural changes (CDC, 1995; National Commission on Children, 1991).

Declining Participation in School

Level of education is increasingly recognized as an important correlate of substance abuse. Heavier use tends to occur among those who are less well-educated (Robert Wood Johnson Foundation, 1993). About 30 percent of all students entering high school do not graduate within the next 4 years. (CDF, 1995).

Difficulty in Academic Achievement. Many youngsters do not develop the skills and habits necessary to keep up with classmates and complete their education. Such achievement problems may result from early behavior problems, learning disabilities, inadequate teaching methods, or other problems. Beginning in the late elementary grades, academic failure increases the risk of both early substance abuse and delinquency. It appears that the experience of school failure itself increases the risk of problem behaviors (Hawkins et al., 1992).

In addition, some studies indicate that successful school performance is associated with a decreased likelihood of frequent substance abuse:

> Successful school performance is a protective factor mitigating against escalation to a pattern of regular marijuana use. Working toward strengthening the educational system would have many beneficial effects, including a potential reduction in the number of students who go on to abuse drugs (Kandel & Davies, 1992).

Dropping Out of School. Because most surveys of substance abuse and related risk behaviors among American youth do not regularly reach those who are not in school, the 1992 Youth Risk Behavior Surveillance Survey oversampled youngsters aged 12 to 19 years who had dropped out of school (CDC, 1994c). Risk behaviors for these children were compared with the risk behaviors of youth who remained in school. The survey found that all types of substance abuse increased with age, but out-of-school adolescents were significantly more likely than those in school to report recent use of a psychoactive substance. (The rate of episodic binge drinking, however, did not vary by school enrollment status.)

Youth and Mental Health

- An estimated 12 to 15 percent of youth have a mental disorder.
- The proportion of children receiving psychological assistance increased by 80 percent between 1981 and 1990.
- The most frequently diagnosed disorders in children are disruptive behavior, including attention deficit hyperactivity disorder and conduct disorder. Children with either of these conditions are at above average risk for developing substance abuse problems in adolescence (see chapter 2).
- More than 5 percent of all school-aged children have diagnosable depression or anxiety and serious learning difficulties (National Commission on Children, 1991).

Crime and Safety Problems

Out-of-School Youth

- The school drop-out rate is particularly high in inner-city high schools, where as many as half of students do not graduate (Johnson & Muffler, 1992).
- Out-of-school adolescents are more likely than their student counterparts to have had sexual intercourse (70.1 versus 45.4 percent) and to have had four or more sexual partners (36.4 versus 14.0 percent), but are not more likely to use condoms.
- Youth who are not in school are also more likely than their student counterparts to take rides with drivers who have been drinking, to get involved in physical fights, and to carry a dangerous weapon (CDC, 1994b, 1994c).

Violent crime consists of murder and manslaughter, rape, robbery, and assault. In the United States, there were approximately 1,800,000 violent crimes during 1995, a rate of 685 per 100,000 inhabitants (Federal Bureau of Investigation, 1996). Violence has increasingly become not only a premeditated tool used to commit criminal acts but also a response to emotional distress and interpersonal conflict. For this reason, and because of the substantial increase in the number of violent acts, violence—previously seen as the primary responsibility of the fields of law enforcement, social services, and mental health—has become a national public health priority.

Nonfatal injuries seen most frequently in emergency facilities include gunshot and knife wounds, broken bones, and lost teeth. The economic, political, and social disenfranchisement of inner cities is linked to the proliferation of crimes and drug trafficking, especially by youth in low-income communities. Rates of injury from violent and abusive behavior are highest among males, African Americans, people aged 19 to 24 years, those who are separated or divorced, those living in poverty, and residents of inner cities (Harlow, 1989). The most frequent victims of rape are women who are young, unmarried, and have a low income. The rates of rape and attempted rape, however, are difficult to measure because it is estimated that only about half of all victims contact law enforcement officials to report the crime (Bureau of Justice Statistics, 1985). Homicide is the 11th leading cause of premature death in the United States. Most homicides are committed with a firearm and occur among or between acquaintances (CDC, 1986b). Poverty and the use, manufacture, and distribution of drugs have been identified as important factors associated with homicide. Among youth, intentional injury exacts a disproportionately high toll of deaths, and the problem appears to be worsening (DHHS, 1991). The age of children involved in serious crimes is dropping as guns become more readily available.

Delinquency. Although youth who become involved in delinquent behavior and substance abuse come from all social strata and vary markedly in personality, juveniles in the justice system are more likely to be male, poor, living in high-density areas, and from an ethnic minority population (Earls & Reiss, 1994). Many juveniles who enter the justice system have psychosocial deficits in their backgrounds. These risk factors stem from breakdowns in five influential domains in juveniles'

Homicide and Youth

- Although adults still commit 84 percent of all murders, the number of juveniles arrested for homicide increased by 168 percent between 1984 and 1993 (NCHS, 1995).
- In 1991, nearly half (49 percent) of homicide victims in the United States were males aged 15 to 34 years (NCHS, 1995).
- More adolescent boys die of gunshot wounds than of all natural causes combined (NCHS, 1995).
- The homicide rate among Blacks far exceeds that for non-Blacks of the same age and sex (CDC, 1986b).

lives: Neighborhood, family, school, peers, and individual characteristics (Hawkins & Catalano, 1992). The presence of risk factors such as community disorganization, availability of drugs and firearms, and persistent poverty make children more prone to involvement in delinquent behavior than if those factors were not present. Additionally, when a child's family life is filled with violence, problem behaviors, poor parental monitoring, and inconsistent disciplinary practices or maltreatment, the child's risk of delinquency increases. Youth exhibiting combinations of these deficits in multiple domains of their lives are at highest risk of delinquency.

There are several reasons why many youths who are involved with drugs enter the juvenile justice system. Substance abuse increases the likelihood that individuals will engage in risky, destructive, or even violent behavior. Youths who are addicted may commit crimes such as theft, drug trafficking (which does not necessarily correlate with addiction), or prostitution. These youths often come in contact with others who are involved in substance abuse and crime and who reinforce these behaviors. (See discussion of the social development model in chapter 2.)

Three research projects supported by the Office of Juvenile Justice and Delinquency Prevention found that substance use and involvement in delinquent behavior are clearly interrelated (National Consortium of TASC Programs, 1995). Further, across all age, gender, and ethnic groups, the seriousness of a youth's involvement in substance abuse increases with the seriousness of his or her involvement in delinquency, and vice versa. Many of the risk factors for substance abuse presented in chapter 2 are also risk factors for delinquency.

Early Onset of Substance Abuse

The age at which young people start experimenting with alcohol, tobacco, and illicit drugs is a powerful predictor of later substance abuse, especially if use begins before age 15 (Robert Wood Johnson Foundation, 1993). Those who begin using alcohol or tobacco when they are very young have a higher rate of heavy use later in life. This is cause for concern because, by the time they are in 8th grade, 70 percent of youth report having tried alcohol; 10 percent, marijuana; and 44 percent, cigarettes (Robert Wood Johnson Foundation, 1993). Although many young people experiment with alcohol, tobacco, and illicit drugs at an early age, many do not continue to use them in adulthood.

CONCLUSION

The negative consequences of substance abuse place an enormous burden on Americans—not only on individuals but also on families, communities, and society as a whole. The consistent view of health experts is expressed in a report by the New York State Anti-Drug Abuse Council (1989):

> Evidence is overwhelming that alcoholism and drug abuse are inextricably linked to the most pernicious social, health, and economic problems facing Americans today. These problems include family violence and child abuse, increased health care costs, AIDS transmission, and decreased learning in school, among others.

Violent Crime and Youth

- Juveniles were responsible for 17 percent of all violent crimes in 1991.
- The estimated 122,900 arrests of juveniles in 1991 reported by the Violent Crime Index was the highest in history. A total of 3,400 arrests were made for murder, 6,300 for forcible rape, 44,500 for robbery, and 68,700 for aggravated assault (Allen-Hagen & Sickmund, 1993).

This chapter has presented evidence about conditions that affect family life and point to increased risks associated with substance abuse. Although some data reflect improvements in these conditions for all families, there is a significant core of families under stress for whom conditions continue to be deeply troublesome. These are the families whose children are at greatest risk of engaging in antisocial behavior, including substance abuse. As discussed in chapter 2, risks are related in part to the degree of nurturing and support children receive from their families, as well as the support their families receive from their communities. In communities where many risk factors prevail, it is likely that there is an elevated rate of substance abuse among family members, including children.

USING THIS GUIDELINE

The following chapters are presented at a level appropriate for those who already possess the necessary skills to implement the recommended actions or who have the ability to acquire these skills using extant resources in the field. This guideline is not prescriptive, but is based on the recommendations of a non-Federal Expert Panel. The substance abuse prevention approaches presented in the guideline should be implemented with careful attention to community needs and available resources in combination with the evidence analyzed through the Prevention Enhancement Protocols System (PEPS).

Seven major audiences have been identified for PEPS products:

1. *State-level agencies*—Single State agencies for substance abuse prevention and treatment and collaborating State-level agencies are primary audiences for the PEPS guidelines.

2. *Substate agencies*—In all States, substate agencies are involved to varying degrees in basic prevention planning and development functions. These substate agencies also constitute a primary audience of PEPS products.
3. *Community-based programs*—PEPS guidelines can address the guidance needs of programs ranging from dynamic grassroots efforts to projects affiliated with schools, churches, workplaces, or other organizations within the community, thus conserving State and local resources.
4. *Individual practitioners*—Certain prevention interventions will likely be of special interest to school principals and staff, youth leaders, health personnel, physicians, nurses, lay and religious leaders, and judicial personnel, among others. PEPS practitioner's guides and community guides are tailored specifically to the needs of these individuals.
5. *Target groups*—PEPS companion documents may also be developed to inform substance abuse prevention target groups about emerging prevention activities that focus on the community and to advise these groups of opportunities to participate in these projects.
6. *Federal and national prevention program sponsors*—Prevention guidelines may be useful to the many Federal and national programs that sponsor substance abuse prevention efforts across the country. Prevention concepts, recommended approaches, and resources needed for specific interventions are all possible topics of interest to these groups.
7. *Prevention researchers*—Each guideline in the PEPS series devotes considerable attention to identifying gaps in knowledge and areas for further research. To the extent that these observations reflect a consensus of researchers and practitioners in the field, they serve as a good starting point for setting research priorities.

CONTENTS OF THIS GUIDELINE

Chapter 2, *Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse*, uses three domains, or areas of influence, as the framework for a discussion of the factors that place youth at risk for substance abuse and the factors that play a protective role. The three domains are personal characteristics of the child, family conditions, and the social environment. The chapter proceeds to review several theoretical models that have been used to study the interaction of risk and protective factors and the impact they have on the likelihood of substance abuse.

Chapter 3, *Analysis of Evidence and Recommendations for Practice*, examines three approaches to the prevention of substance abuse among youth. Each approach is subjected to PEPS criteria for rigor and extent of existing research and practice evidence. Specific conclusions for each approach are presented in the form of four possible levels of evidence. The level-of-evidence statements are complemented by

evidence-based lessons learned and recommendations for practice that draw on both the evidence and the insight of the Expert Panel.

Chapter 4, *Program Development and Delivery of Family-Centered Prevention Approaches*, provides guidance for community action in terms of assessment, planning, delivery, and evaluation. The chapter also focuses on special planning issues, including collecting data with reference to risk and protective factors, involving families and communities in program planning, and identifying resources in the community to support target families and their community.

Chapter 5, *Emerging Areas of Research and Practice*, discusses the constructs of resilience and family support. These constructs are relevant to family-centered approaches but were not included in this guideline's analysis of research and practice because of an insufficient body of evidence to meet PEPS criteria. In addition to a description of these constructs, the chapter identifies recent and ongoing research efforts and areas that require more research and development.

Six appendixes are included to augment readers' understanding of the PEPS process and the content of the guideline and to point out relevant areas of information and sources not covered by this guideline.

REFERENCES

Allen-Hagen, B., & Sickmund, M. (1993). *Juveniles and violence: Juvenile offending and victimization* (pp. 1–2). Washington, DC: U.S. Department of Justice, Office of Juvenile Justice Delinquency and Prevention.

American College of Obstetricians and Gynecologists (ACOG). (1994). *Substance abuse in pregnancy* (ACOG Technical Bulletin 195). Washington, DC: Author.

Beckwith, L., Rodning, C., Norris, D., Phillipsen, L., Khandabi, P., & Howard, J. (1994). Spontaneous play in two-year-olds born to substance-abusing mothers. *Infant Mental Health Journal, 15*(2), 189–201.

Bingol, N., Fuchs, M., Diaz, V., Stone, R. K., & Gromisch, D. S. (1987). Teratogenicity of cocaine in humans. *Journal of Pediatrics, 110*, 93–96.

Bourdon, K. H., Rae, D. S., Locke, B. Z., Narrow, W. E., & Reiger, D. A. (1992). Estimating the prevalence of mental disorders in U.S. adults from the Epidemiological Catchment Area Survey. *Public Health Reports, 107*, 663–668.

Breakey, W. R., Fischer, P. J., Kramer, M., Nestadt, G., Romanski, A. J., Ross, A., Royall, R. M., & Stine, O. C. (1989). Health and mental health problems of homeless men and women in Baltimore. *Journal of the American Medical Association, 262*, 1352–1358.

Brook, J. S., Whiteman, M., Gordon, A. S., & Brook, D. W. (1988). The role of older brothers in younger brothers' drug use viewed in the context of parent and peer influences. *Journal of Genetic Psychology, 151*, 59–75.

Bureau of Justice Statistics. (1985). *The crime of rape* (Publication No. NCJ–96777). Washington, DC: U.S. Department of Justice.

Bureau of Labor Statistics. (1997). *Employment characteristics of families: 1996.* Washington, DC: U.S. Department of Labor.

Carnegie Council on Adolescent Development. (1995). *Great transitions: Preparing adolescents for a new century.* New York: Carnegie Corporation.

Center for Substance Abuse Treatment. (1993). Pregnant, substance-using women (Treatment Improvement Protocol No. 2, DHHS Publication No. SMA 93-1998). Rockville, MD: Author.

Centers for Disease Control and Prevention. (1986a). *Youth suicide in the United States, 1970–1980.* Atlanta, GA: U.S. Department of Health and Human Services.

Centers for Disease Control and Prevention. (1986b). *Homicide surveillance: High-risk racial and ethnic groups/Blacks and Hispanics, 1970 to 1983.* Atlanta, GA: U.S. Department of Health and Human Services.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1994a). Health of our Nation's children (DHHS Publication No. PHS 95-1519). Washington, DC: U.S. Government Printing Office.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1994b). Health risks among adolescents who do and do not attend school—United States, 1992. *Morbidity and Mortality Weekly Report, 43*(8), 129–132.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1994c). Health-risk behaviors among persons aged 12–21 years—United States, 1992. *Morbidity and Mortality Weekly Report, 43*(13), 231–233.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1995). Suicide among children, adolescents, and young adults—United States, 1980–1992. *Morbidity and Mortality Weekly Report, 44*(15), 289–291.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1996). Youth risk behavior surveillance—United States, 1995 [CDC Surveillance Summaries]. *Morbidity and Mortality Weekly Report, 45*(SS-4), 1–32.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1997a). Abortion surveillance: Preliminary analysis—United States, 1995. *Morbidity and Mortality Weekly Report, 46*(48), 1133–1137.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1997b). Cigarette smoking among adults—United States, 1995. *Morbidity and Mortality Weekly Report, 46*(51), 1217–1220.

Centers for Disease Control and Prevention, National Center for Health Statistics. (1997c). Alcohol consumption among pregnant and childbearing-aged women—United States, 1991 and 1995. *Morbidity and Mortality Weekly Report, 46*(16), 1–4.

Chasnoff, I. J. (1992, August). Cocaine, pregnancy, and the growing child. *Current Problems in Pediatrics,* pp. 302–322.

Chasnoff, I. J., Griffith, D. R., Freier, C., & Murray, J. (1992). Cocaine/polydrug use in pregnancy: Two-year follow-up. *Pediatrics, 89*(2), 284–289.

Children's Defense Fund. (1995). *The state of America's children: Yearbook 1995.* Washington, DC: Author.

Children's Defense Fund. (1996). *The state of America's children: Yearbook 1996.* Washington, DC: Author.

Dishion, T. J., & Loeber, R. (1985). Adolescent marijuana and alcohol use: The role of parents and peers revisited. *American Journal of Drug and Alcohol Abuse, 11,* 11–25.

Dishion, T. J., Andrews, D. W., & Crosby, L. (1995). Antisocial boys and their friends in early adolescence: Relationship characteristics, quality, and interactional process. *Child Development, 66,* 139–151.

Earls, F. J., & Reiss, A. J. (1994). *Breaking the cycle: Predicting and preventing crime* (National Institute of Justice Research Report). Washington, DC: National Institute of Justice.

Emery, R. F. (1988). Marriage, divorce, and children's adjustment. Newbury Park, CA: Sage.

Farrington, D. P. (1978). The family backgrounds of aggressive youths. In L. Hersov, M. Berger, & D. Shaffer (Eds.), *Aggression and antisocial behavior in childhood and adolescence* (pp. 73–93). Elmsford, NY: Pergamon Press.

Federal Bureau of Investigation. (1996). *1995 crime in the United States.* Washington, DC: Author.

Fors, S. W., & Rojek, D. G. (1991). A comparison of drug involvement between runaways and school youth. *Journal of Drug Education, 21,* 13–25.

Friedberg, J. S., & Kaiser, L. R. (1997). Epidemiology of lung cancer. *Seminars in Thoracic and Cardiovascular Surgery, 9*(1), 56–59.

Haggerty, R., Roghmann, K., & Pless, I. B. (1975). *Child health and the community.* New York: John Wiley and Sons.

Hammett, M., Powell, K. E., O'Carroll, P. W., & Clanton, S. T. (1992). Homicide surveillance—United States, 1979–1988. *Morbidity and Mortality Weekly Report, 41*(SS-3), 1–33.

Handler, A., Kistin, N., Davis, F., & Ferre, C. (1991). Cocaine use during pregnancy: Perinatal outcomes. *American Journal of Epidemiology, 133*, 818–825.

Harlow, C. W. (1989). *Injuries from crime.* Washington, DC: U.S. Department of Justice.

Hawkins, J. D., Catalano, R. F. (1992). *Communities that care: Action for drug abuse prevention.* San Francisco: Jossey-Bass.

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64–105.

Jacobs Institute of Women's Health. (1995). *The women's health data book: A profile of women's health in the United States* (2nd ed., J. A. Horton, Ed). Washington, DC: Author.

Johnson, B. D., & Muffler, J. (1992). Sociocultural aspects of drug use and abuse in the 1990s. In J. H. Lowinson, P. Ruiz, & R. B. Millman (Eds.), *Substance abuse: A comprehensive textbook* (2nd ed., pp. 118–137). Baltimore: Williams & Wilkins.

Kandel, D. B., & Andrews, K. (1987). Processes of adolescent socialization by parents and peers. *International Journal of the Addictions, 22*, 319–42.

Kandel, D. B., & Davies, M. (1992). Progression to regular marijuana involvement: Phenomenology and risk factors for near-daily use. In M. Glantz & R. Pickens (Eds.), *Vulnerability to abuse* (p. 238). Washington, DC: American Psychological Association.

Kann, L., Warren, C. W., Harris, W. A., Collins, J. L., Williams, B. I., Ross, J. G., Kolbe, L. J., & State and Local YRBSS Coordinators. (1996). Youth risk behavior surveillance—United States, 1995 [CDC Surveillance Summaries]. *Morbidity and Mortality Weekly Report, 45*(SS-4), 1–83.

Koegel, P., Melamid, E., & Burnam, A. (1995). Childhood risk factors for homelessness among homeless adults. *American Journal of Public Health, 85*(12), 1642–1649.

Liddle, H. A., & Dakof, G. A. (1995). Efficacy of family therapy for drug abuse: Promising but not definitive. *Journal of Marital and Family Therapy, 21*(4), 511–543.

McCord, J. (1979). Some child-rearing antecedents of criminal behavior in adult men. *Journal of Personality and Social Psychology, 37*(9):1477–1486.

McCormick, M. (1989). *Designer-drug abuse.* New York: Franklin Watts.

McLanahan, S. (1988). The consequences of single parenthood for subsequent generations. *Focus, 2*(3), 16–21.

McLanahan, S., & Sandefur, G. (1994). *Growing up with a single parent: What hurts, what helps*. Cambridge, MA: Harvard University Press.

National Center on Child Abuse and Neglect. (1994). *Child maltreatment 1993: Reports from the States to the National Center on Child Abuse and Neglect*. Hyattsville, MD: National Center for Health Statistics.

National Center for Health Statistics. (1990). Advance report, final marriage statistics, 1987. *Monthly Vital Statistics Report, 38*(12) (Suppl.).

National Center for Health Statistics. (1993). Advance report of final natality statistics, 1991. *Monthly Vital Statistics Report, 42*(3) (Suppl.).

National Center for Health Statistics. (1994). *Health, United States, 1993* (DHHS Publication No. PHS 95-1232). Hyattsville, MD: U.S. Department of Health and Human Services.

National Center for Health Statistics. (1995). *Health, United States, 1994* (DHHS Publication No. PHS 95-1232). Hyattsville, MD: U.S. Department of Health and Human Services.

National Commission on Children. (1991). *Beyond rhetoric: A new American agenda for children and families: Final report*. Washington, DC: Public Health Service.

National Consortium of TASC Programs. (1995). A public safety partnership: The criminal justice system and treatment: A compendium of recent research on substance abuse and crime. Silver Spring, MD: Author.

National Institute on Alcohol Abuse and Alcoholism. (1990a). *Alcohol and women* (Alcohol Alert No. 10 PH290).

National Institute on Alcohol Abuse and Alcoholism. (1990b). *Seventh special report to the U.S. Congress on alcohol and health from the Secretary of Health and Human Services*. Rockville, MD: U.S. Department of Health and Human Services.

National Institute on Alcohol Abuse and Alcoholism. (1993). *Eighth special report to the U.S. Congress on alcohol and health* (p. 245). Washington, DC: U.S. Department of Health and Human Services.

National Institute on Drug Abuse. (1996). *National survey results on drug use from the Monitoring the Future Study, 1975–1995. Volume I: Secondary school students* (NIH Publication No. 96-4139). Rockville, MD: Author.

National Research Council. (1986). *Environmental tobacco smoke: Measuring exposures and assessing health effects*. Washington, DC: National Academy Press.

New York City Commission on the Homeless. (1992). *The way home: A new directory in social policy*. New York: Author.

New York State Anti-Drug Abuse Council. (1989). *The case for drug and alcohol treatment* (State Alcohol and Drug Abuse Profile Report). Albany, NY: Author.

Nicholi, A. M. (1983). The college student and marijuana: Research findings concerning adverse biological and psychological effects. *Journal of American College Health, 32*, 73–77.

Office of National Drug Control Policy. (1995, Spring). *Pulse check: National trends in drug abuse.* Washington, DC: Author.

Office on Smoking and Health. (1987). *The health consequences of involuntary smoking: A report of the Surgeon General* (DHHS Publication No. CDC 87-8398). Rockville, MD: U.S. Department of Health and Human Services.

Office on Smoking and Health. (1994). *Preventing tobacco use among young people: A report of the Surgeon General.* Atlanta, GA: Centers for Disease Control and Prevention.

Office of Technology Assessment. (1986). *Children's mental health: Problems and services: A background paper* (pp. 24–27). Washington, DC: U.S. Congress.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys.* Eugene, OR: Castalia.

Pepper, B., & Ryglewicz, H. (1984). The young adult chronic patient and substance abuser. *TIE Lines, 1*(2).

Robert Wood Johnson Foundation. (1993). *Substance abuse: The Nation's number one health problem—Key indicators for policy.* Princeton, NJ: Institute for Health Policy, Brandeis University.

Robins, L. N., & Przybeck, T. R. (1985). Age of onset of drug use as a factor in drug and other disorders. In C. L. Jones & R. J. Battjes (Eds.), *Etiology of drug abuse: Implications for prevention* (National Institute on Drug Abuse Research Monograph No. 56). Rockville, MD: National Institute on Drug Abuse.

Schoenborn, C. A., & Boyd, G. (1989). Smoking and other tobacco use, United States, 1987. *Vital Health Statistics, 10*(169), 1–33.

Schoendorf, K. C., & Kiely, J. L. (1992). Relationship of sudden infant death syndrome to maternal smoking during and after pregnancy. *Pediatrics, 90*, 905–908.

Seymour, R., Smith, D., Inaba, D., & Landry, M. (1989). *The new drugs: Look-alikes, drugs of deception, and designer drugs.* Center City, MN: Hazelden Foundation.

Smith, E. M., Cloninger, R., & Bradford, S. (1985). Predictors of mortality in alcoholic women: A prospective followup study. *Alcoholism: Clinical and Experimental Research, 7*, 237–243.

Substance Abuse and Mental Health Services Administration. (1993). *Preliminary estimates from the 1992 National Household Survey on Drug Abuse* (Advance Report No. 3). Rockville, MD: Author, Office of Applied Studies.

Substance Abuse and Mental Health Services Administration. (1994). *National Household Survey on Drug Abuse: Population estimates 1993* (DHHS Publication No. SMA 94-3017). Rockville, MD: Author, Office of Applied Studies.

Substance Abuse and Mental Health Services Administration. (1995a). *Preliminary estimates from the 1994 National Household Survey on Drug Abuse* (Advance Report No. 10). Rockville, MD: Author, Office of Applied Studies.

Substance Abuse and Mental Health Services Administration. (1995b). *National Household Survey on Drug Abuse: Population estimates 1994* (DHHS Publication No. SMA 95-3063). Rockville, MD: Author, Office of Applied Studies.

Substance Abuse and Mental Health Services Administration. (1997a). *Preliminary estimates from the 1996 National Household Survey on Drug Abuse*. Rockville, MD: Author, Office of Applied Studies.

Substance Abuse and Mental Health Services Administration. (1997b). *National Household Survey on Drug Abuse: Population estimates 1996*. Rockville, MD: Author, Office of Applied Studies.

University of Michigan Institute for Social Research. (1997). *Monitoring the Future Study—1997*. Ann Arbor, MI: Author.

U.S. Department of Health and Human Services. (1991). *Healthy People 2000: National health promotion and disease prevention objectives* (DHHS Publication No. PHS 91-50212). Washington, DC: Public Health Service.

U.S. Department of Health and Human Services. (1993). Measuring the health behavior of adolescents: The Youth Risk Behavior Surveillance System and recent reports on high-risk adolescents. *Public Health Reports, 108*(Suppl. 1), 25–36.

Ventura, S. J., Martin, J. A., Curtin, S. C., & Matthews, T. J. (1997). Report of final natality statistics, 1995. *Monthly Vital Statistics Report, 45*(11).

2 Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse

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2 Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse

Researchers have known for some time that certain conditions in the lives of some children and adolescents make it more likely or less likely that they will use alcohol, tobacco, and illicit drugs. These conditions are often referred to as either *risk factors*—conditions that increase the likelihood of substance abuse—or *protective factors*—conditions that prevent or modify risk factors or improve circumstances in the lives of adolescents, thereby reducing the likelihood of substance abuse. Researchers believe that it is necessary both to reduce risks *and* to enhance protective factors to maximize the prevention of adolescent substance abuse.

To maximize the prevention of adolescent substance abuse, it is important both to reduce known risks and to enhance protective factors.

The most extensively studied risk and protective factors affecting adolescent onset of substance abuse have been described and categorized in a variety of ways during the past decade (Bry, 1995; Hawkins, Catalano, & Miller, 1992; Hawkins, Arthur, & Catalano, 1994; Kumpfer & Alvarado, 1995; Institute of Medicine, 1994; Rutter, 1987a; Turner, 1995; Werner, 1986, 1989, 1992). Based on this research, a number of etiological models have been developed to explain the relationship between the presence or absence of these factors and the development of substance abuse and other adolescent problem behaviors. The prevention approaches described in chapter 3 are built on these studies of risk and protective factors and on current etiological models.

THE INFLUENCE OF RISK AND PROTECTIVE FACTORS

Risk and protective factors for adolescent substance abuse are not discrete traits or characteristics, but are complex factors that interact in dynamic ways. As understanding of these interactions grows, researchers are generally reaching agreement on the following:

- *Many influences in the lives of families and children determine the impact of risk and protective factors.* These influences include the developmental level of the child, the degree of interaction among the risk and protective factors, the number that are experienced simultaneously, their intensity and duration, and the interactions among the risk and protective factors within families and with the larger environment.
- *A core of risk factors is common to several adolescent problem behaviors.* Because several risk factors for substance abuse are also risk factors for delinquency—dropping out of school, teen pregnancy, and other serious problems of adolescence—addressing the common core of risk factors can affect these and other problems.
- *Risk and protective factors operate in multiple domains.* The ways in which risk and protective factors interact among different domains can increase or decrease the probability of substance abuse in adolescence. The major domains in which risk and protective factors operate include the following:
  - — The child's genetic and biological makeup, behavior, and personality.
  - — Family structure, management, and practices.
  - — Environmental influences and conditions outside the family, such as school experiences, peer influences, the work and social milieus of parents, and community mores and values.

Some researchers refer to these domains as "a set of nested systems" (Bronfenbrenner, 1979; Szapocznik & Kurtines, 1993). For example, children are affected by the dynamics and interactions of the families in which they live, which are in turn influenced by the surrounding community environment. This point is discussed in more detail in the section on contextualism later in this chapter.

Risk Factors and the Link to Substance Abuse

In many cases, a causal relationship between the risk factors described in this chapter and adolescent substance abuse has not been established. Rather, evidence that such a correlation exists is based on longitudinal observations of the presence of an identified risk factor during the onset of adolescent substance abuse. However, many researchers have concluded that even though the causal role of many risk factors is under investigation, it is worthwhile to aggressively address them in efforts to prevent adolescent substance abuse.

As described, the core risk factors identified in research thus far relate to the domains of the individual child, the family, and the larger environment, including the school, the neighborhood, and the community. Each of these domains is described below.

Individual Risk Factors: Biology, Behavior, and Personality

Investigators continue to examine the role of genetic and biological factors in substance abuse. Research has demonstrated that in some cases, children's antisocial and other problem behaviors can predict substance abuse, particularly when these problems exist at an early age. Further, the severity of adolescent drug involvement appears to correlate directly with the frequency of problem behaviors, including delinquency (e.g., interpersonal aggression, theft, and vandalism). The likelihood that antisocial and other problem behaviors (which are themselves predictors of substance abuse) will persist into adulthood increases with the variety, frequency, and severity of antisocial behaviors in childhood. Some of the behavioral and personality factors most commonly identified as possible risks for the onset of substance abuse are as follows:

- Antisocial and other problem behaviors, such as conduct disorder, attention deficit hyperactivity disorder (ADHD), and aggressiveness (particularly in boys).
- Alienation and rebelliousness.
- High tolerance of deviance and a strong need for independence.
- Psychopathology.
- Attitudes favorable to drug use.
- High-risk personality factors, such as
  - — sensation seeking,
  - — low harm avoidance, and
  - — poor impulse control.

Family Risk Mechanisms

The interaction and communication of parents, parents and children, and siblings play an important role in creating, exacerbating, or ameliorating the risk of substance abuse. Researchers have explored many of the circumstances and characteristics of families that predispose children to this risk. These examinations have led to several categorizations and groupings of risk factors, as well as hypotheses about various paths that lead to substance abuse. The family risk factors most commonly documented in the research literature fall into the following categories:

Family Behavior Concerning Substance Abuse. The likelihood of substance abuse by children increases when their parents abuse substances, either privately or in the

presence of the children; when parental attitudes are perceived by the children as permissive toward youths' substance use; or when siblings (particularly older brothers) use drugs.

Family Management and Parenting Practices. Many behaviors and attitudes on the part of parents have been correlated with higher risk for children's substance abuse. These include overinvolvement of one parent and distancing by the other, low parental educational aspirations for children, and unclear or unrealistic parental expectations for children's behavior, especially as these expectations relate to the children's developmental level. Poor disciplinary techniques have been linked to the risk for substance abuse, such as a lack of or inconsistent discipline or excessively harsh punishment. The quality of the mother's relationship with the child has also been the subject of studies, indicating that the following parenting practices predispose children to substance abuse:

- Low maternal attachment.
- Lack of maternal involvement in children's activities.
- Cold, unresponsive, underprotective attitudes on the part of the mother.
- Maternal use of guilt to control children's behavior.

Family Conflict. Numerous studies have shown that conflict among family members is a strong predictor of delinquency and antisocial behavior, including substance abuse. A nontraditional family structure (i.e., single-parent household or "blended" family of parents and children from current and past unions) does not appear to be as strong a predictive factor as conflict among family members.

Physical Abuse. Perpetration of physical abuse is a major risk factor for adolescent substance abuse as well as for other antisocial behaviors. The earlier the age when physical abuse is experienced, the greater the potential for negative effects. Although common sense would suggest that sexual abuse is also a risk factor, research has not yet addressed this issue.

Environmental and Contextual Risk Factors

The social, institutional, and economic contexts in which families live have a strong bearing on the extent of children's risk for substance abuse. In most instances, environmental contexts operate independently as risks for adolescent substance abuse (e.g., peer influences or academic failure). However, the environment can also interact with existing child and family risk factors to heighten children's predispositions to substance abuse. The environmental and contextual risk factors commonly cited in the research are as follows:

Influence of Peers. Rejection or limited acceptance of children by their peers, particularly in the early school grades, appears to increase the risk of school problems and delinquency, which are in turn risk factors for substance abuse.

Cultural and Social Norms and Laws. Certain trends in social norms for substance abuse, as well as laws governing the availability and use of both legal and illegal substances, increase children's risk for substance abuse. Such trends include poor enforcement of the minimum purchase age for alcohol and tobacco products, social norms condoning use, and a proliferation of alcohol and tobacco product advertisements.

Poverty. Although the extent of economic well-being plays a role in the risk for substance abuse, poverty appears to increase this risk only when it is extreme and only in children with behavior problems or other risk factors. Children from families with high socioeconomic status generally have a lower than average rate of delinquency, while high population density, overcrowding, and poor housing appear to contribute to antisocial behavior and delinquency, which are risk factors for substance abuse.

Neighborhood Disorganization. Studies explicitly examining the relationship between "neighborhood disorganization" and substance abuse are scarce, but a number of environmental factors relating to neighborhoods and communities have been identified as contributing to delinquency and drug trafficking. These factors include deterioration of the physical state of the neighborhood, lack of a sense of community, a high crime rate, poor visibility of public places, and high mobility and transience. Deteriorating neighborhood conditions are sometimes due to the withdrawal of economic investments and jobs and the accompanying loss of a tax base. Neighborhood disorganization appears to hinder the ability of parents to instill prosocial values in their children—values that could help ward off delinquency and substance abuse.

Failure to Achieve in School. Academic failure, especially in the late elementary grades, increases the risk for substance abuse in adolescence. This is true regardless of whether school failure is due to behavior problems, truancy, learning disabilities, poor school environment, or other causes. Intellectual ability, however, has not been found to relate directly to an avoidance of substance abuse. In fact, some studies have shown a positive correlation between high intelligence and some types of substance abuse (Hawkins et al., 1992).

The Role of Protective Factors in Substance Abuse Prevention

Even when risk factors are present, they are not precise predictors of the development of unwanted behaviors. Most children exposed to the risk factors described

above do not, in fact, develop substance abuse problems as adults. Many of these children successfully negotiate the stages of childhood and adolescent development, possibly experimenting with substance use, without becoming chronic abusers. Investigators studying the etiology of substance abuse have attempted to identify and define the characteristics of these resilient children's personalities, families, and social environments, characteristics that appear to protect them from circumstances that could otherwise lead them to engage in substance abuse.

Factors that protect against adolescent onset of substance abuse have been far less extensively studied than have the risk factors that may lead to it. Researchers have hypothesized, however, that this protection is not merely the absence or opposite of risk factors, but rather the presence of positive influences that supplant, prevent, or counteract the risks. Protective mechanisms can interact with existing risk factors to prevent, modify, or moderate their effects. Protective mechanisms can also interact with each other to strengthen their protective effects (Hawkins et al., 1994; Rutter, 1987a). For example, the absence of a nurturing parent (a risk factor) could be counteracted by the presence of a nurturing grandparent or family friend (a protective factor). A child's strong bonding with his or her mother (a protective factor) can enhance that child's academic achievement in school (also a protective factor).

The best researched protective factors have also been categorized as individual and personality characteristics, family characteristics, and environmental factors. Protective factors are also frequently explained using the construct of resilience, an emerging area of research discussed in chapter 5.

Protective Individual and Personality Characteristics

Protective mechanisms relating to individual characteristics, as identified and described in the literature, include the following:

- A positive temperament or disposition.
- A broad repertoire of social coping skills.
- Belief in one's self-efficacy and the ability to adapt to changing circumstances.
- A positive social orientation.

As stated earlier, the role of intelligence as a protective factor against substance abuse remains unclear. In fact, high intelligence has in some cases been found to correlate with certain types of adolescent substance abuse. However, a number of researchers have found that intelligence can be a protective factor against severe childhood stresses, juvenile delinquency, and incompetency as an adult (Garmezy, 1993; Kumpfer, 1993; Werner, 1986). Because of the association between juvenile delinquency and substance abuse in adolescent behavior, it could be inferred that intelligence is therefore

also a protective factor against substance abuse, but the dynamics of this relationship have not yet been demonstrated by research.

Because some individual protective mechanisms (e.g., positive temperament) are influenced by hereditary traits, they are not always directly amenable to prevention interventions. However, identifying and understanding these traits may make it possible to teach parents and children how to cope with and compensate for characteristics that pose risk. Some researchers have suggested that successful coping can in and of itself be a protective mechanism (Rutter, 1987a).

Protective Family Characteristics

Research indicates that two types of family-related factors can protect against the risk of substance abuse: (1) cohesion, warmth, and attachment (bonding) with one or both parents during childhood and (2) parental supervision of daily activities and conduct.

The importance of cohesion, warmth, and bonding as protective mechanisms was illustrated in a study by Richters and Martinez (1993), in which children attending elementary school in a Washington, DC, neighborhood characterized by violence were assessed to identify early predictors of adaptational success or failure. The researchers found that, despite being exposed to similar levels of violence in their neighborhoods, the children exhibited varying degrees of adaptational success and failure (defined by academic performance and reports of behavior by their parents). The children's degree of success or failure was determined by characteristics of their home lives. The risk of adaptational failure increased only when external adversities threatened the stability and safety of the children's homes.

Contrary to many popular assumptions about parents' lack of influence on adolescents, parental monitoring of adolescent substance abuse has been found to be a significant deterrent to substance abuse for adolescents across many demographic groups and cultures (Dishion, Reid, & Patterson, 1988; Ensminger, 1990; Richardson et al., 1989). Parental monitoring is particularly effective in middle childhood, when children may be vulnerable to initiating substance abuse and associating with deviant peers—when monitoring is accompanied by positive methods of behavior management and by family bonding and warmth (Catalano et al., 1992; Chilcoat, Dishion, & Anthony, 1995).

Protective Environmental Factors

The environmental contexts in which families live have a significant influence on children's lives and, when unfavorable, have the potential to predispose them to substance abuse. Sources of emotional support outside the immediate family—particu-

larly one or several close friends and an informal network of neighbors, extended family, peers, and elders—can help protect children who are exposed to other risk factors. Successful school performance and strong commitment to school are also important. The following external factors appear to prevent or reduce the effects of risks such as poverty, low education, and family conflict:

- A positive external support system.
- Formal and informal family supports and resources.
- Norms, beliefs, and behavioral standards against substance use.
- Successful school achievement and commitment to school.

ETIOLOGICAL MODELS FOR THE DEVELOPMENT OF ADOLESCENT SUBSTANCE ABUSE

Etiological models for the development of adolescent substance abuse generally seek to explain the relationships among risk and protective factors, that is, to identify the patterns and principles underlying the way these factors interact to shape children's lives. They also help to explain observable patterns of substance abuse among adolescents and provide markers for its development. Many of the approaches developed and used to prevent substance abuse in children and youth, including those presented in chapter 3, are based on the etiological models described in this section.

Researchers have not often had the opportunity to intervene in the lives of families with young children and then follow these children to observe their experimentation and substance abuse patterns during adolescence. Therefore, many of the prevention approaches assessed in chapter 3 do not directly measure adolescent substance abuse, but rather evaluate factors that are important precursors of substance abuse, as identified by etiological models. An understanding of these models will therefore help practitioners plan programs that can affect these precursors.

The strength and association of risk and protective factors differ among groups by gender, ethnicity, culture, and social ecology or context. Local prevention program designers should not assume any one theory of causation for their target population, but should seek local data or locally tested theories on which to base prevention designs (Kumpfer & Turner, 1990–91).

The Developmental Pathways Model

A wealth of research describes various models of the relationship between developmental risk factors and adolescent substance abuse (e.g., Baumrind, 1991; Block, Block, & Keyes, 1988; Brook, Whiteman, Gordon, & Cohen, 1989; Brook, Whiteman, Cohen, & Tanaka, 1991; Coombs & Coombs, 1988; Kazdin, 1992; Maguin, Zucker, & Fitzgerald, 1994; McMahon, 1994; Patterson, 1982; Rutter, 1987a, 1987b, 1989). For example, risk factors—such as poor parenting skills, ad-

verse family and environmental conditions, and characteristics of the child (e.g., irritability and discipline problems)—can interact over time to lead to conduct problems and to subsequent substance abuse. Some investigators have attempted to identify the pathways this sequence of events takes. According to the *developmental pathways model*, the presence of individual, familial, or social risk factors in a child's life can predispose him or her to engage in negative behaviors, which may in turn lead to additional adverse events and circumstances—and further counterproductive interactions.

The developmental pathways model can be illustrated by the development of conduct problems that begin during childhood (in contrast to those that begin in adolescence, which are usually less severe). This developmental pathway may involve risk factors such as stressful family conditions, which, in interaction with poor parenting skills, reinforce child noncompliance and "teach" children to engage in aversive behavior, as described below.

The apparent mechanism underlying this process involves stressors, such as marital conflict or financial difficulties, that make it difficult for parents to set consistent limits for their children or to provide effective support for them. This difficulty is exacerbated when the children have characteristics such as irritability or hyperactivity and when parents lack effective parenting skills. In the absence of constructive guidance from their parents, the children can become increasingly noncompliant, aggressive, and impulsive. Parents who lack the skills to deal with this behavior may allow it to continue, thereby reinforcing its use by the children. Subsequently, the children may begin to use aversive behavior in their social interactions outside the family. In other words, children learn to use aversive and hostile behaviors to react to their home environment and eventually extend these hostile behaviors to school and peer interactions. In this way, the child develops antisocial behaviors in nearly all of his or her interactions over time (Conduct Problems Prevention Research Group, 1992). These antisocial behaviors place the child at high risk for initiating substance abuse.

This example does not account for all of the many possible variables in a given pathway, nor does it allow for the variety of positive circumstances that can break the cycle of failure or otherwise affect the outcome for the child. Therefore, the developmental pathways model also takes mitigating factors into consideration. Among these mitigators are genetic predisposition, biological manifestations, shaping of the environment, cognitive and social skills, self-esteem and self-efficacy, habits, cognitive sets (internal organization of one's personal traits), coping styles, and links between experiences (Rutter, 1989).

Such pathways may be set in motion throughout an individual's life or only during certain periods. Conduct problems, for example, may begin early and may result in a deviant lifestyle; may begin later, during adolescence, and may be less severe; or may develop temporarily in response to certain situations (Moffitt, 1993). The study of children over time, from childhood to early adulthood, has provided evidence of relationships or pathways leading from early conduct problems, accompanied by parental social dysfunction, to the subsequent development of late adolescent substance abuse (Brook et al., 1991).

Integral to the developmental pathways model is the view that windows of opportunity exist during childhood to arrest or prevent the development of aversive behaviors that lead to substance abuse, such as poor conduct. These opportunities are theorized to be present during transitional periods, such as the move from preschool to elementary school and from elementary school to middle school. According to this model, it is especially appropriate to deliver intensive interventions to children with conduct problems during the developmental stages in which these events occur (Conduct Problems Prevention Research Group, 1992).

The Social Development Model

The *social development model* seeks to explain antisocial behaviors, which are themselves risk factors for substance abuse, by examining the socialization processes (the interaction of developmental mechanisms through relationships with family, school, and peers) that predict such behaviors. This model hypothesizes that all children progress through similar developmental processes, during which they may develop a predominance of either prosocial or antisocial behaviors, depending on how they experience socialization and the other influences affecting their development (Catalano & Hawkins, 1996; Catalano, Kosterman, Hawkins, Newcomb, & Abbott, 1996; Hawkins & Weis, 1985). Therefore, the social development model specifies the mechanisms by which identified risk and protective factors interact to give rise to either prosocial or antisocial behaviors (Catalano et al., 1996).

Interventions based on the social development model include the modeling of prosocial activities. For example, parents are taught to give consistent messages about substance abuse and to encourage adolescents' participation in activities that increase opportunities for prosocial interaction (Spoth, Redmond, Haggerty, & Ward, 1995).

The social development model holds that both prosocial and antisocial patterns of behavior are learned from the *same socialization agents*. These agents include the family, school, religious and community institutions, and peers. The processes by which social behavior patterns are learned include children's perceived opportunities for involvement and interaction with others, their degree of involvement in these interactions, their skills to participate in them, and their reinforcement from them. Children and adolescents typically experience both prosocial and antisocial influences and engage in both types of behavior

during their development. According to the social development model, however, the predominant behavior of adulthood will depend on the influence that was dominant during childhood and adolescence. Youth who have primarily been exposed to prosocial influences are more likely to exhibit prosocial behaviors; those who have primarily experienced antisocial influences are more likely to exhibit antisocial behaviors (Catalano et al., 1996).

The Social Ecology Model

Like the social development model, the *social ecology model* (Kumpfer & Turner, 1990–91) is based on the belief that an adolescent's interactions with social, school, and family environments ultimately influence substance abuse and other antisocial behaviors. The social ecology model, however, emphasizes the importance of increasing opportunities *within the social environment* for youth to develop social competencies and self-efficacy.

It is known that the immediate direct predictor of substance abuse among adolescents is association with antisocial peers and involvement in antisocial peer behavior. Through empirical testing of the social ecology model, however, Kumpfer and Turner found that the factor leading to an adolescent's selection of prosocial or antisocial peers was his or her self-esteem or perceived self-efficacy—and his or her bonding with the school as a prosocial environment that rewards students for achievement and promotes involvement.

The social ecology model offers an explanation of the "buffering effects of positive family and school environments on involvement with negative peers" (Kumpfer & Turner, 1990–91, p. 456). Positive interactions with family and school environments can have a positive effect on the choice of prosocial friends, which in turn can positively influence the adolescent's choices about substance abuse. Thus, prevention programs based on this model attempt to improve family and school environments to foster prosocial development.

According to this model, the interplay between a youth and his or her family climate also influences the youth's self-esteem and self-efficacy. Family climate is determined over time through interactions between children and parents as they socialize and bond. Thus, bonding with both the school environment and the family shapes perceived self-efficacy and subsequent choice of peers—which influences choices about substance abuse.

Contextualism

Contextualism hypothesizes that all behavior must be understood within its context. "Context," however, is broadly defined to include not only interactions between a person and his or her immediate environment but those between the individual and the domains of family, school, peers, community, and the larger societal or global environment. The concept of contextualism has its source in the work of Urie Bronfenbrenner (Bronfenbrenner, 1986; Bronfenbrenner & Crouter, 1983) and is

now incorporated in a model that attempts to explain adolescent substance abuse (Szapocznik & Kurtines, 1993).

Szapocznik and Kurtines (1993) have examined and applied the model of contextualism to adolescents' increased risk for substance abuse within the context of family conflicts. Working with Hispanic adolescents, Szapocznik and Kurtines observed that family conflict developed when these youths began to assimilate American cultural values, which were in many ways in opposition to the Hispanic values held by their parents. Using the contextualism model, the authors reframed the intergenerational conflict between the youth and their parents as "nested" in a cultural context. Thus, the family members were able to perceive cultural conflict as a common foe. Cross-alliances were fostered between parents and youth, who were encouraged to appreciate aspects of each other's cultural values that were meaningful to them.

Contextualism can provide a basis for interventions that can be implemented in multiple systems and environments (e.g., family, school, peer relationships, and cultural value systems), especially the natural systems in which adolescents live and operate (Borduin & Henggeler, 1990).

In a different setting, Conger et al. (1991) examined the relationship between the contexts of family economic means on the one hand, and family environment on the other. Their focus was the effect of economic hardship on adolescent alcohol use in midwestern families. Financial hardships were shown to lead to conflict between the parents and increased hostile behavior by the parents toward the children. Marital conflict, hostile behavior between parents and youth, and decreased parental control all contributed directly to the risk of alcohol use by these adolescents.

FAMILY-CENTERED APPROACHES TO PREVENTION

The etiological models just described have been used by practitioners and researchers to develop *prevention approaches* directed toward substance abuse by youth. (Prevention approaches are groups of prevention activities that broadly share common methods and strategies, assumptions, and outcomes, as defined in chapter 3). Of these prevention approaches, three met the criteria for inclusion in this guideline: parent and family skills training, in-home support services, and family therapy (see appendix B for the inclusion criteria used to select the prevention approaches described in chapter 3 and for a description of prevention approaches not included in this guideline). From the review of the etiological models on which these approaches are based, several prevention trends emerged concerning the interrelationships and interactions among children, families, and the broader domains within which they exist, as follows:

- *There is a trend away from focusing on individual behaviors of children in single domains and toward broad contextual functioning of families in mul-*

tiple domains. Intervention research has broadened from addressing children's needs in discrete settings, such as just the school or just the family, toward addressing multiple domains involving the family, the school, and the community.

- *There is a trend away from viewing the family as a self-contained and independent unit and toward viewing it as an interdependent unit.* Increasingly, researchers are examining interactions not only among family members but among families and community networks and systems that affect families' capacities and outcomes at many levels.
- *There is a trend away from intervening in child behavioral problems as isolated events and toward recognizing that children's behaviors are embedded in ongoing developmental and family processes.* Research is focusing on the developmental stages and processes of children as they unfold in relationship to their families, recognizing the following:
  - — Interventions must be appropriate to the age, sex, culture, and developmental processes of the individual child and may be more successful if introduced during children's earlier developmental stages.
  - — Problems accumulate, reformulate, and reemerge throughout a child's development stages. Intervention researchers have interpreted this phenomenon as an indication that interventions are needed throughout all developmental stages and all environmental settings.

The three approaches addressed in this guideline use varying combinations of preventive measures, strategies, and settings. These characteristics, as well as the family members included in the intervention and the intended outcomes, are shown in table 2-1. The universal, selective, and indicated prevention measures referred to in the table, measures that relate to the child's degree of risk, are defined in chapter 3. The three prevention approaches are briefly described in the following paragraphs as an introduction to the detailed presentations in chapter 3.

Prevention Approach 1: Parent and Family Skills Training

Parent and family skills training seeks to reduce the risk factors and enhance the protective factors relating to family life and behavior. The interventions in this approach have as their objectives the following:

- Parent and family skills training to improve and strengthen family life.
- Promotion of healthy children within the family setting.
- Improvement of relationships between parents and children.
- Instruction to parents on addressing specific problem behaviors of their children.
- General improvement of the structure, functioning, and interaction of families.

TABLE 2-1: Key Features of Family-Centered Prevention Approaches

Prevention Approach	Prevention Measures Used	Family Members Included	Key Strategies	Outcomes	Setting
Parent and Family Skills Training	Universal Selective Indicated	Parent training targets parents only, possibly with children in separate sessions. Family skills training is held with both parents and children. Combined parent and family skills training targets both parents and children.	Teaches skills, sometimes in combination with support groups or counseling.	Strengthen family ties. Acquire or improve parenting skills. Improve child behavior.	Individual families or groups of families in clinic or classroom.
In-Home Support Services	Indicated	Entire family living in household.	Provides skills training, therapy, and support services.	Preserve and/or reunite family with problems of child abuse or neglect or antisocial behavior. Stabilize crises. Improve parenting skills to nurture children. Improve family functioning.	Individual families in the home and in the community.
Family Therapy	Indicated	Parents and children, sometimes including siblings or other family members.	Therapy.	Improve family functioning and dynamics to resolve or mitigate problems with child.	Individual family in a clinic or in home.

Most interventions that use the approach of parent and family skills training are based on the social development or social ecology models, which stem from social learning and operant theories of behavior. Other parent and family skills training interventions are based on the developmental pathways and contextualism models.

Most parent and family skills training approaches work to strengthen ties within families by teaching parents how to model and reinforce positive behavior. Because of the emphasis on developing and enhancing skills, interventions within this approach are usually intended to help parents practice what they learn (either with their children or through role playing and other learning exercises) and to receive feedback from the results of their practice.

These approaches teach parents how to model and reinforce positive behavior in relationship to identified interactional, communication, problem-solving, and discipline problems, especially with children who are exhibiting antisocial and other problem behaviors (or who are at above average risk for these behaviors). By modeling social skills, teaching them to their children, and strengthening family ties, parents reduce the risk that their children will be influenced by antisocial and substance-using peers.

In addition to directing prevention measures to children and families with varying degrees of risk, interventions for family and skills training may or may not involve both parents and children, as follows:

- *Parent training interventions* may involve the parents without the children, or parents and children separately.
- *Family skills training interventions* include the parents and children in training sessions in a clinic or at home.
- *Combined parent and family skills training* can be conducted in a variety of ways. For example, separate sessions may be held for the parents alone and for the family as a whole. Alternatively, separate sessions may be held for parents, for children, and for the family as a whole.

Prevention Approach 2: Family In-Home Support

Family in-home support is a prevention approach that addresses risk and protective factors by focusing on preserving families through intervention in the home. Such interventions are designed to help reunite families with children who have been placed in foster care or to alleviate crises that, left unaddressed, might lead to the out-of-home placement of children. This approach uses indicated prevention measures to support families at home through crisis-related services in response to immediate needs, longer range services to improve parenting skills and support child development, and support services such as respite care, health care, and housing (Kinney, Haapala, Booth, & Leavitt, 1990).

Depending on the combination of services and training provided to a family, in-home support may draw on any one or all of the four etiological models discussed earlier in this chapter. This approach also draws on an eclectic mixture of other approaches. For example, it may draw on the parent training approach to teach parenting skills, as well as on the approach of family therapy (described in the following section) to restore a very troubled family's structure and functioning.

Prevention Approach 3: Family Therapy

Family therapy usually employs prevention measures to intervene in families with children or adolescents with recognized antisocial or other problem behavior. Most

such families have high levels of conflict, and many live in highly stressful environments. Interventions based on this approach most often take place in a clinic setting and are usually delivered to an individual family rather than a group of families.

Although the family therapy approach as defined here addresses families in which children and adolescents are not yet abusing substances, in practice, this distinction may be difficult to uphold. Many researchers believe that delinquency, conduct problems, and substance abuse among adolescents often occur simultaneously—that where one condition exists, the others are likely to be present, even though not diagnosed. Thus, practitioners may often find that substance abuse is already present in adolescence, even when they are intervening for delinquency or conduct problems to prevent substance abuse.

The following paragraphs describe therapies that are representative of the interventions used in the family therapy approach. Although there is some overlap in the concepts on which these therapies are based, each is sufficiently distinct to warrant mention here.

Structural and Strategic Therapies

Structural and strategic therapies focus on altering the structure and functions of internal family dynamics. Their primary goal is not the achievement of deep insight into behavior, but a change in family interactions so that individual development is supported while a sense of belonging is preserved. By making a family's relationships more functional, its members are better able to solve the problem that created the need for therapy (Santisteban et al., 1995).

Multisystemic Therapy

Also referred to as *family ecology therapy*, multisystemic therapy recognizes that childhood problems exist in a broad social context that includes multiple domains—such as the family, the school, and the community—and that each of these domains affects the influence of the others; that is, they are *bidirectional*. Therapists using this intervention attempt to identify the relationships among systems that contribute to dysfunction in children and families. They work on improving children's social skills as well as altering the interactions of family members between and among these life domains. Multisystemic therapy is therefore designed to intervene directly in the systems and processes of the individual family, including parental discipline, family affective relations, peer associations, and school performance, which are known to be related to antisocial behavior in adolescents (Henggeler, Melton, & Smith, 1992; Henggeler et al., 1986).

Functional Family Therapy

Functional family therapists strive to help family members understand their interactions and relationships. Family members and their behaviors are seen as a highly interdependent set of relationships in which change in the behaviors of one family member affects all family members. Therefore, functional family therapy works to change the communication and behavior patterns of individuals to improve the ways in which relationships function within the family unit (Alexander & Parsons, 1982).

CONCLUSION

The family-related events and conditions in the lives of children and adolescents that predispose them to substance abuse are multifaceted and complex. One must take into account the relationships between the child and the family; among family members; and among the child, the family, and the larger environment. Researchers are increasingly recognizing the importance of the risk and protective factors identified as precursors to adolescent substance abuse, even though they do not yet fully understand the causal nature of these relationships. Approaches that seek to reduce risks and enhance protective factors to prevent adolescent substance abuse are now widely recognized and used by prevention practitioners.

Although many models and theories exist to explain human and family behavior, most of the interventions described in chapter 3 draw on one or more of the four etiologic models described (the developmental pathways model, the social development model, the social ecology model, and contextualism) to explain the relationships between risk and protective factors and adolescent substance abuse. Chapter 3 presents detailed information about research and practice interventions in three prevention approaches for substance abuse (parent and family skills training, in-home support, and family therapy). Some interventions in these approaches do not specifically address substance abuse prevention but are directed at reducing the risks and enhancing the protective factors associated with adolescent substance abuse. As demonstrated in the next chapter, these interventions are often embedded in the efforts of community programs and organizations, such as schools, child behavior clinics, child development programs, family therapy programs, child welfare agencies, and churches—all organizations that are trying to meet the broader needs of families.

REFERENCES

Alexander, J., & Parsons, B. V. (1982). *Functional family therapy.* Monterey, CA: Brooks/Cole.

Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*(1), 56–95.

Block, J., Block, J. H., & Keyes, S. (1988). Longitudinally foretelling drug usage in adolescence: Early childhood personality and environmental precursors. *Child Development, 59*, 336–355.

Borduin, C. M., & Henggeler, S. W. (1990). A multisystemic approach to the treatment of serious delinquent behavior. In R. J. McMahon, & R. D. Peters (Eds.), *Behavior disorders of adolescence* (pp. 63–80). New York: Plenum Press.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723–742.

Bronfenbrenner, U., & Crouter, A. C. (1983). The evolution of environmental models in development research. In P. H. Mussen (Ed.) & W. Kessen, (Volume Ed.), *Handbook of child psychology, volume 1: History, theory, and methods* (4th ed., pp. 357–414). New York: Wiley.

Brook, J., Whiteman, M., Gordon, A., & Cohen, P. (1989). Changes in drug involvement: A longitudinal study of childhood and adolescent determinants. *Psychological Reports, 65*(3-1), 707–726.

Brook, J. S., Whiteman, M., Cohen, P., & Tanaka, J. S. (1991). Childhood precursors of adolescent drug use: A longitudinal analysis. *Genetic, Social, and General Psychology Monographs, 118*(2), 197–213.

Bry, B. H. (1995). *Parenting practices that reduce substance abuse risk: Challenge for prevention research*. Unpublished manuscript. National Institute on Drug Abuse (NIDA) professional services contract paper. Rockville, MD: NIDA.

Catalano, R. F., & Hawkins, J. D. (1996). The social development model: A theory of antisocial behavior. In J. D. Hawkins (Ed.), *Delinquency and crime: Current theories*. New York: Cambridge University Press.

Catalano, R. F., Kosterman, R., Hawkins, J. D., Newcomb, M. D., & Abbott, R. D. (1996). Modeling the etiology of adolescent substance use: A test of the social development model. *Journal of Drug Issues, 26*(2):429–455.

Catalano, R. F., Morrison, D., Wells E. A., Gillmore, M. R., Iritani, G., & Hawkins, J. D. (1992). Ethnic differences in family factors related to early drug initiation. *Journal of Studies on Alcohol, 53*(3), 208–217.

Chilcoat, H. D., Dishion, T. J., & Anthony, J. C. (1995). Parent monitoring and the incidence of drug sampling in urban elementary school children. *American Journal of Epidemiology, 141*, 25–31.

Conduct Problems Prevention Research Group. (1992). A developmental and clinical model for the prevention of conduct disorder: The FAST Track program. *Development and Psychopathology, 4*:509–527.

Conger, R. D., Lorenz, F. O., Elder, G. H., Melby, J. N., Simons, R. L., & Conger, K. J. (1991). A process model of family economic pressure and early adolescent alcohol use. *Journal of Early Adolescence, 11*(4), 430–449.

Coombs, R. H., & Coombs, K. (1988). Developmental stages in drug use: Changing family involvements. *Journal of Chemical Dependency Treatment, 1*(2):75–98.

Dishion, T. J., Reid, J. G., & Patterson, G. R. (1988). Empirical guidelines for a family intervention for adolescent drug use. *Journal of Chemical Dependency Treatment, 1*(2), 189–224.

Ensminger, M. E. (1990). Sexual activity and problem behaviors among black, urban adolescents. *Child Development, 61*, 2032–2046.

Garmezy, N. (1993). Children in poverty: Resilience despite risk. *Psychiatry, 56*, 127–136.

Hawkins, J. D., Arthur, M. W., & Catalano, R. F. (1994). Preventing substance abuse. *Crime and Justice, 8*(24), 197–277.

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*, 64–105.

Hawkins, J. D., & Weis, J. G. (1985). The social development model: An integrated approach to delinquency prevention. *Journal of Primary Prevention, 6*, 73–97.

Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology, 60*(6), 953–961.

Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology, 22*(1), 132–141.

Institute of Medicine. (1994). *Reducing risks for mental disorders*. P. J. Mrazek, & R. J. Haggerty (Eds.). Washington, DC: National Academy Press.

Kazdin, A. E. (1992). Child & adolescent dysfunction and paths toward maladjustment: Targets for intervention. *Clinical Psychology Review, 12*(8), 795–817.

Kinney, J., Haapala, D., Booth, C., & Leavitt, S. (1990). The homebuilders model. In J. L. Whittaker, J. Kinney, E. M. Tracy, & C. Booth (Eds.), *Reaching high-risk families: Intensive family preservation in human services* (pp. 31–64). New York: Aldine de Gruyter.

Kumpfer, K. L. (1993). *Strengthening America's families: Promising parenting strategies for delinquency prevention*. Washington, DC: U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention.

Kumpfer, K. L., & Alvarado, R. (1995). Strengthening families to prevent drug use in multiethnic youth. In G. J. Botvin, S. Schinke, & M. A. Orlandi (Eds.), *Drug abuse prevention with multiethnic youth* (pp. 1–40). Thousand Oaks, CA: Sage.

Kumpfer, K. L., & Turner, C. W. (1990–91). The social ecology model of adolescent substance abuse: Implications for prevention. *International Journal of the Addictions, 25*(4A), 435–463.

Maguin, E., Zucker, R., & Fitzgerald, H. (1994). The path to alcohol problems through conduct problems: A family-based approach to very early intervention with risk. *Journal of Research on Adolescence, 4*(2), 249–269.

McMahon, R. J. (1994). Diagnosis, assessment, and treatment of externalizing problems in children: The role of longitudinal data. *Journal of Consulting and Clinical Psychology, 62*(5), 901–917.

Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100*(4), 674–701.

Patterson, G. R. (1982). The management and disruption of families. In *A social learning approach: Coercive family process* (Vol. 3). Eugene, OR: Castalia Publishing.

Richardson, J. L., Dwyer, K., McGuigan, K., Hansen, W. B., Dent, C., Johnson, D. A., Sussman, S. Y., Brannon, B., & Flay, B. (1989). Substance use among eighth grade students who take care of themselves after school. *Pediatrics, 84*(3), 556–566.

Richters, J. E., & Martinez, P. E. (1993). Violent communities, family choices, and children's chances: An algorithm for improving the odds. *Development and Psychopathology, 5*, 609–627.

Rutter, M. (1987a). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 57*(3), 316–331.

Rutter, M. (1987b). Continuities and discontinuities from infancy. In J. Osofsky (Ed.), *Handbook of infant development* (2nd ed., pp. 1256–1298). New York: Wiley.

Rutter, M. (1989). Pathways from childhood to adult life. *Journal of Child Psychology and Psychiatry, 30*(1):23–51.

Santisteban, D. A., Coatsworth, J. D., Perez-Vidal, A., Mitrani, V., Jean-Gilles, M., & Szapocznik, J. (1995). *Brief structural/strategic family therapy with African American and Hispanic high risk youth.* Unpublished manuscript, University of Miami School of Medicine, Department of Psychiatry and Behavioral Sciences, Center for Family Studies, Miami.

Spoth, R., Redmond, C., Haggerty, K., & Ward, T. (1995). A controlled parenting skills outcome study examining individual difference and attendance effects. *Journal of Marriage and the Family, 57*, 449–464.

Szapocznik, J., & Kurtines, W. M. (1993). Family psychology and cultural diversity: Opportunities for theory, research, and application. *American Psychologist, 48*(4), 400–407.

Turner, S. (1995). Family variables related to adolescent substance misuse: Risk and resiliency factors. In T. P. Gullotto, G. R. Adams, & R. Montemayer (Eds.), *Substance misuse in adolescence* (pp. 36–55). Thousand Oaks, CA: Sage.

Werner, E. E. (1986). Resilient offspring of alcoholics: A longitudinal study from birth to age 18. *Journal of Studies on Alcohol, 47*, 34–40.

Werner, E. E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry, 59*, 72–81.

Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High-risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.

3 | Analysis of Evidence and Recommendations for Practice

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Substance Abuse Problems and the Status of the American Family

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Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse

CHAPTER 3:
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3 Analysis of Evidence and Recommendations for Practice

Family-centered approaches to the prevention of substance abuse among children and adolescents are used in a variety of settings and have diverse goals. Three approaches were identified and included in this guideline because evidence of their effectiveness is documented in the literature: parent and family skills training, family in-home support, and family therapy. Family therapy and parent and family skills training are commonly provided in clinical settings and are often used to help families address child behavior problems. In-home family support is usually embedded in programs that focus on family preservation, child abuse, or other health care issues. This approach can be found in child welfare programs, health-based organizations, schools, neighborhood centers, and as part of church-related activities. Review and analysis of the research and practice evidence for each of these approaches follow.

This chapter describes an analysis of the effectiveness of family-centered approaches to substance abuse prevention and provides recommendations for practice.

This chapter includes the following four major sections:

1. *Classification of Preventive Measures and Description of Approaches*—The first part of this section presents a classification scheme for developing preventive measures and categorizing them according to the risk levels of their target audiences. The next part of this section defines the term *prevention approach* and the three family-centered approaches evaluated in this guideline.

2. *Analysis of Evidence*—This section describes the analyses of the research and practice evidence for each of the three prevention approaches. The presentation of each approach includes the following:
   a. The conceptual foundation for the approach.
   b. A list of the research and practice evidence reviewed.
   c. The level of evidence found, including the conclusions drawn from the evidence and the strength of the evidence supporting the conclusions (see the discussion of the levels of evidence in About This Guideline).
   d. Lessons learned for each prevention approach based on the research and practice evidence reviewed.
   e. Suggestions for future research based on the research and practice evidence reviewed.
   f. Recommendations for practice, observations, and interpretations made by the Expert Panel regarding the three prevention approaches (see the discussion of recommendations for practice in About This Guideline).
3. *General Suggestions for Future Research*—This section includes suggestions for future research that relate to more than one of the three prevention approaches.
4. *General Recommendations for Practice*—This section includes recommendations for practice that relate to more than one of the three prevention approaches.

An appendix to this chapter, *Research and Practice Evidence Abstracts,* describes in a standard format each of the research studies and practice cases that was analyzed. Each abstract describes the study design (where appropriate), the overall intent of the study or program, and the findings or results most relevant to the prevention approach in question.

CLASSIFICATION OF PREVENTIVE MEASURES AND DESCRIPTION OF APPROACHES

This section presents a classification scheme for developing preventive measures and categorizing them according to the risk levels of their target audiences. It is followed by a definition of the term *prevention approach* and descriptions of the three family-centered approaches evaluated in this guideline.

Classification Scheme for Prevention

According to Gordon (1983), prevention efforts can be "operationally classified on the basis of the population groups among which they are optimally used." Gordon's classification scheme incorporates a cost-benefit assessment with regard to various populations. In the context of family-centered substance abuse prevention efforts, the benefits of working with families at various degrees of risk for substance abuse are weighed against the cost to society for carrying out specific interventions with these families. Gordon defined three categories of preventive measures: Universal,

selective, and indicated (Gordon, 1983, 1987). The term *preventive measure* here denotes a cluster of interventions designed for a group of families sharing a common level of risk for substance abuse.

Universal Preventive Measures

Universal preventive measures are desirable for everyone. These measures "can be advocated confidently for the general public" (Gordon, 1983, p. 108). In relation to substance abuse, universal measures are directed to the general population or to a general subsection of the public (e.g., all families in a community, school district, or religious institution). These families have not been identified on the basis of risk factors related to substance abuse; however, exposure of these families to prevention strategies could reduce the possibility of future substance abuse. The underlying assumption of universal measures is that all children benefit when parents and families have good nurturing skills that can create protective family and community environments.

Selective Preventive Measures

Broadly, selective preventive measures are "advisable for population subgroups distinguished by age, sex, occupation, or other evident characteristics, but who are perfectly well" (Gordon, 1983, p. 108). In the field of substance abuse prevention, selective measures are directed to subgroups of families with children who do not yet abuse substances but who, as a subgroup, have an above average risk for developing substance abuse problems. Examples of these subgroups are people living in areas characterized by disorganization, violence, or drug trafficking; single-parent families or families of divorce; and families in economic distress (e.g., the unemployed, the homeless, recipients of Temporary Assistance for Needy Families (TANF), and the low-income working poor). The goal of selective measures is to ensure that families in these targeted subgroups have access to interventions designed to reduce family risk factors that are characteristic of the subgroup and could lead to adolescent substance abuse—and to strengthen protective factors that can help prevent adolescent substance abuse.

Indicated Preventive Measures

Gordon states that "indicated preventive measures should be applied only in the presence of a demonstrable condition that identifies the individual as at higher-than-average risk for the future development of a problem" (Gordon, 1983, p. 108). When applied to family-centered substance abuse prevention, these measures are directed to specific families (as opposed to subgroups) who have children with known, identified risk factors. As with other types of preventive measures, the children of these families are not yet known to be abusing substances. Examples of populations targeted for indicated preventive measures include families who have

children with serious behavioral, conduct, emotional, or psychiatric disorders requiring clinical treatment; families who have children with delinquency problems; and families with substance-abusing parents, a history of physical or sexual abuse, evidence of neglect, extreme family conflict, or other types of violence. Families receiving indicated prevention interventions are usually identified through child welfare programs, mental health clinics, substance abuse treatment programs for adults, and schools and other community institutions that work with families whose children are having serious difficulties with behavior or personal adjustment.

Prevention Approaches Analyzed in This Guideline

A *prevention approach* is defined as a group of prevention activities that broadly share common assumptions (theories or hypotheses), methods and strategies, and desired outcomes. The three prevention approaches evaluated in this chapter (parent and family skills training, family in-home support, and family therapy) are relevant to the outcome of preventing or reducing child and adolescent substance abuse. However, some interventions described in the approaches are not designed to directly prevent substance abuse. Rather, they are intended to decrease risk factors (or their effects) and increase protective factors (or their effects) that are related to adolescent substance abuse. Changing behaviors and conditions through these interventions should result in a decrease in the likelihood of substance abuse.

During the evaluation phase of guideline development, research and practice evidence was identified and grouped within the three prevention approaches. As appropriate, the prevention approaches were then classified or subgrouped according to the prevention classification scheme of Gordon (1983, 1987). Brief descriptions of the prevention approaches are provided in the following sections.

Prevention Approach 1: Parent and Family Skills Training

Parent and family skills training is designed to improve family communication skills, teach parents skills for nurturing and protecting their children, modify counterproductive parenting behavior, decrease children's antisocial and other problem behaviors, and encourage the development of prosocial skills. This prevention approach is divided into two subgroups: (1) parent and family skills training as universal and/or selective preventive measures and (2) parent and family skills training as indicated preventive measures.

Prevention Approach 2: Family In-Home Support

Family in-home support provides parents and families with services tailored to their unique needs with the goal of stabilizing the family environment so that parents are better able to protect and nurture their children. In this guideline, family in-home support is characterized as an indicated preventive measure.

Prevention Approach 3: Family Therapy

Family therapy helps family members reduce maladaptive family functioning, decreases negative behavior, and fosters skills for healthy family interactions. In this guideline, family therapy is characterized as an indicated preventive measure.

ANALYSIS OF EVIDENCE

This section presents the results of the Expert Panel's analysis of the research and practice evidence for each of the three prevention approaches. The approaches are reviewed and presented in a standardized format that allows the reader to systematically examine their purposes, similarities, and differences. Within each prevention approach presented, several elements of the research and practice evidence are discussed. These elements are the following:

These analyses are based on a systematic and rigorous review and evaluation of the research and practice evidence.

- Conceptual Framework of the Approach or Cluster.
- Overview of the Evidence Reviewed.
- Levels of Evidence.
- Lessons Learned.
- Suggestions for Future Research.
- Recommendations for Practice.

PREVENTION APPROACH 1: PARENT AND FAMILY SKILLS TRAINING

Family functioning, structure, and values have a significant impact on children's capacity to develop prosocial skills and cope with life's challenges. Parent and family skills training interventions can have a positive effect on parental and familial roles and interactions by providing family members with new skills that promote better nurturing and protection of children. This type of training can be used to decrease antisocial, aggressive, or other problem behaviors of children and parents; help children develop prosocial skills; and foster specific parenting skills. It can also be used to train parents to deal with children who are particularly challenging or have behavior problems. Parent and family skills training interventions can be delivered as indicated, selective, or universal preventive measures.

In the following discussion of the effectiveness of parent and family skills training, the three-part classification scheme for prevention described earlier was used to divide the evidence into two intervention clusters: universal and/or selective preventive measures, and indicated preventive measures. The universal and selective classifications were combined because there was insufficient research literature to permit separate evaluations of the evidence and because these classifications have more similarities than differences.

Conceptual Framework for Cluster 1: Parent and Family Skills Training as Universal and/or Selective Preventive Measures

The concept underlying parent and family skills training as universal and/or selective preventive measures is that promotion of prosocial behaviors and skills should prevent the development of risk factors for substance abuse, such as antisocial and other problem behaviors, and help children to develop and strengthen the factors that protect against substance abuse.

The parent and family skills training interventions described in this cluster are targeted toward families in the general population whose children have not been selected on the basis of risk or symptoms of problem behavior *or* toward families whose children are exposed to several risk factors and therefore at higher than average risk for developing substance abuse problems. These parent and family skills training interventions are usually implemented in voluntary, nonclinical settings.

Parent and Family Skills Training Clusters

Prevention Approach 1, Parent and Family Skills Training, is divided into two clusters:

- Cluster 1: Universal and/or Selective Preventive Measures.
- Cluster 2: Indicated Preventive Measures.

The discussions for each cluster include overviews of the research and practice evidence and levels of evidence. Lessons learned and suggestions for future research are then presented for the entire approach.

Presentation of the prevention approach concludes with recommendations for practice for both clusters.

In this cluster, family skills training interventions involve parents or parents and children in structured curriculum activities designed to identify opportunities for change and improve family functioning, including strengthening children's prosocial behaviors and skills. Also in this cluster, some interventions focus specifically on strengthening parents' skills by identifying opportunities for improved parenting, helping parents learn to deal with particularly challenging children, and teaching parents how to strengthen their children's prosocial behaviors and skills.

Overview of the Evidence for Approach 1, Cluster 1: Parent and Family Skills Training as Universal and/or Selective Preventive Measures

Analysis of the effectiveness of parent and family skills training as universal and/or selective preventive measures is based on 14 research studies and 6 practice cases. The objectives of the interventions reviewed in this cluster focused on such changes as acquiring skills and increasing knowledge for parents and improving behavior for children. The expected changes for parents included acquiring or improving parenting skills, child management abilities, and psychological helping skills; developing relationships; and developing empathy. Expected changes for families included conflict resolution and improvements in family cohesion, organization, and relationships.

For youth, expected changes included improvements in general child behavior, psychological adjustment, attachment to family, and commitment to school.

Activities in these interventions included parent and child skills training sessions (primarily in the form of didactic and group sessions), as well as therapy and video-based sessions. Specifically, these included videotape- and curriculum-based training and modeling sessions; didactic, role-playing, and skill practice sessions; and cognitive-behavioral workshops and training sessions.

The following studies examined interventions that included parent training without child involvement:

1. Felner et al. (1994) evaluated the effectiveness of a work-site-based parenting program designed to improve parent-child interactions by increasing the knowledge and improving the attitudes and discipline skills of parents.
2. Myers et al. (1990) examined a culturally appropriate cognitive-behavioral parenting skills–building program.
3. Guerney (1977) evaluated the effectiveness of a skills training program designed to improve psychological helping skills for foster parents.
4. Guerney and Wolfgang (1981) evaluated a skills training program for foster parents that focused on the development of skills for child management, empathy, relationship development, and understanding of children's needs and development.
5. Thompson, Grow, Ruma, Daly, and Burke (1993) evaluated the effectiveness of a parenting program designed to teach middle and lower income parents child management skills to decrease their children's developmental, learning, and behavioral problems.
6. Knapp and Deluty (1989) compared the effectiveness of a behavioral parent training program involving modeling and role playing with a parent training program involving readings, brief review testing, and discussions.
7. Wolchik et al. (1993) evaluated the effectiveness of a parent-based intervention designed to improve psychological adjustment in children of divorced mothers.

The following studies examined interventions that involved parent training plus family skills training:

1. Catalano, Haggerty, Gainey, Hoppe, and the Social Development Research Group (1995) compared the effectiveness of methadone maintenance treatment alone and treatment by a methadone maintenance program that included a parent training component designed to increase relapse prevention skills, improve parenting skills and child skills and behavior, and reduce parent and child drug use.
2. Spoth, Redmond, Haggerty, and Ward (1995) and Kosterman, Hawkins, Haggerty, Spoth, and Redmond (1996, 1997) assessed the efficacy of a

theory-based family skills training intervention designed to prevent adolescent substance abuse and other problem behaviors.

3. Spoth and Redmond (1996), Spoth, Yoo, Kahn, and Redmond (1996), and Spoth, Redmond, Hockaday, and Yoo (1997) examined models of theory-based mechanisms of change in selected outcomes, incorporating intervention parameters such as session attendance levels.
4. Spoth (in press), Spoth, Redmond, and Shin (in press), Spoth, Redmond, Shin, and Huck (in press), and Spoth, Reyes, and Redmond (1997) evaluated the effectiveness of a family competency training program designed to enhance protective parent-child interactions and to reduce children's risk for early substance use initiation.

The following three studies examined interventions that included parent training with separate child training plus family skills training:

1. Kumpfer and DeMarsh (1987) compared the effectiveness of three parent-child-focused, family-based prevention conditions for reducing the substance abuse risk status of children living with a substance-abusing parent (parent training alone, parent training plus children's skills training, and parent and child skills training plus a family skills training program).
2. Kumpfer, Turner, and Palmer (1991) evaluated the effectiveness of a behaviorally oriented parent-child-focused family skills training program for reducing the substance abuse risk status of children in African-American families in rural Alabama living with a substance-abusing parent. The family skills training program was comprised of behavioral parent training sessions, separate children's training sessions, and joint parent and child training sessions.
3. Aktan, Kumpfer, and Turner (1996) evaluated the effectiveness of a family skills training program for inner-city African-American families that is intended to reduce risk factors for substance use in families in which one parent is known to abuse substances. The program consists of concomitant parent training and children's skills training, followed by family skills training classes.

The following three case studies involve parent training without child involvement:

1. The Kansas Family Initiative is a statewide prevention effort designed to train parents about substance abuse risk factors, developing a family position on alcohol and illicit drugs, techniques for alcohol and other drug refusal, managing family conflicts, and strengthening family bonds.
2. The Parenting for Prevention program is a multiagency parenting education and training program designed to reduce risks associated with compromising the health and protection of children, assist parents with child-rearing challenges through effective parenting, and promote bonding within families and with the community.

3. The Communication and Parenting Skills program was a nine-session skills-oriented course designed to teach parental modeling of positive attitudes and behaviors and teach effective communication (Klein & Swisher, 1983). The program included class discussions, assigned reading, skills training, modeling of desired responses, homework, reinforcement, and values clarification. The following case study involved parent training with separate child training: The Creating Lasting Impressions program involved the engagement of church communities in rural, suburban, and urban settings. It involved training in substance abuse issues, family management and enhancement, communication skills for parents and youth, and substance abuse issues for youth.

The following two practice cases involve family skills training:

1. The Families in Focus program involves in-home activities designed to build family cohesion, adaptability, and communication as a way to prevent substance abuse.
2. The Families and Schools Together program is a family- and school-based prevention program that emphasizes enhancement of family functioning and development of protective factors, prevention of school failure and substance abuse, and reduction in family stress. Activities focus on cooperation and collaboration, including assembling family flags, learning songs, and hosting meals.

Abstracts of the research and practice cases used in this analysis are provided at the end of this chapter. Assessment of the level of evidence for Approach 1, Cluster 1 is summarized on page 3-12.

Conceptual Framework for Approach 1, Cluster 2: Parent and Family Skills Training as Indicated Preventive Measures

The concept underlying parent and family skills training as indicated preventive measures is that decreasing children's and family's antisocial and other problem behaviors, fostering prosocial skills in children, and improving the family environment should reduce children's risk factors for developing substance abuse problems and enhance protective mechanisms relative to substance abuse.

This cluster describes family skills training and parent training interventions for families with children who are exposed to multiple risk factors *or* who have a high level of exposure to a single risk factor. The children have behavior disorders or conduct problems and are therefore at high risk for, but are not yet experiencing, substance abuse problems. These interventions are generally carried out in therapeutic or clinical settings and often include structured skills development, therapeutic counseling, and discussion groups.

Level of Evidence for Approach 1, Cluster 1: Parent and Family Skills Training as Universal and/or Selective Preventive Measures

The research and practice evidence in this cluster relates to parent and family skills training as universal and/or selective preventive measures—interventions for parents and families with children who have not yet developed diagnosed problem behaviors or engaged in substance abuse, but who belong to a subgroup whose risk of experiencing substance abuse is higher than average *or* interventions for families with children who have not been selected on the basis of any sign of substance abuse or elevated level of risk.

The research and practice evidence reviewed indicates that it is possible to successfully implement parent and family skills training as universal and/or selective preventive measures as follows:

- There is **strong evidence** that these interventions can stabilize or improve conditions that allow development of risk factors, such as poor parent-child communication, child problem behavior, inadequate parenting skills, poor family relationships, parental substance use, and deficient family functioning (family conflict, poor family communication, and family disorganization).
- There is **suggestive but insufficient evidence** that, when specifically targeted, these interventions can improve children's social skills and prosocial behavior.
- There is **suggestive but insufficient evidence** that, when specifically targeted, these interventions can reduce parental stress and depression, improve children's self-esteem, and promote improvements in acculturation differences between parents and children.
- There is **suggestive but insufficient evidence** that a combination of parent training, children's social skills training, and family relationship enhancement training leads to greater overall improvements in parent-child relationships than does any of these interventions alone.
- There is **suggestive but insufficient evidence** that these interventions can delay the onset and progression of substance use among young adolescents.

In this cluster, interventions focus on developing family skills to address dysfunctional and counterproductive family functioning and behavior, as well as on reducing or eliminating children's problem behaviors. These interventions always involve parents and children in structured curriculum activities designed to improve family functioning. Although parents are always participants in these interventions, the involvement of children ranges from moderate to extensive. Parent training interventions in this cluster focus on development of parenting skills to address dysfunctional and counterproductive parenting practices, to deal with particularly challenging children, and to reduce or eliminate children's problem behaviors.

Overview of the Evidence for Approach 1, Cluster 2: Parent and Family Skills Training as Indicated Preventive Measures

In the research studies and practice cases reviewed for this cluster, the objectives of the interventions were such changes as acquiring skills and increasing knowledge for parents, changing parents' attitudes toward their children, and improving behavior for children. The expected changes for parents included acquiring or improving parenting skills, child management abilities, problem-solving skills, communication skills, and crisis management abilities. The expected changes for youth included improving general behavior, acquiring or improving self-control and compliance, reducing antisocial and other problem behaviors, and reducing arrest rates among offenders.

Activities used to meet the intervention's objectives were typically parent and child skills training sessions, primarily didactic and group sessions, as well as therapy and video-based sessions. Specific activities included videotape- and manual-based training and modeling sessions; didactic, role-playing, and skills practice sessions; and cognitive-behavioral training sessions.

The following studies examined interventions that involved parent training without child involvement:

1. Arnold, Levine, and Patterson (1975) examined the effectiveness of a parent training program involving social learning techniques of child management to reduce the rates of deviant behavior for targeted children's siblings.
2. Dubey, O'Leary, and Kaufman (1983) compared the effectiveness of behavior modification and a communications-based parent training program to reduce child hyperactivity, problem severity, and daily problem occurrence in the parents' hyperactive children.
3. Anastopoulos, Shelton, DuPaul, and Guevremont (1993) evaluated changes in parent functioning resulting from parental participation in a behavioral parent training program designed for school-aged children with attention deficit hyperactivity disorder.
4. Patterson (1974, 1975) examined the effectiveness of a social-learning-based child management program designed to alter the behavior of aggressive children.
5. Webster-Stratton (1984) evaluated the effectiveness of providing mothers with child management skills to enhance their parenting and reduce noncompliance by their children with oppositional behaviors. This study compared individual therapy with therapist-led therapy based on a standardized videotaped modeling program.
6. Webster-Stratton (1990a) evaluated the effectiveness of a self-help videotaped parent training program with and without therapist consultation. The pro-

gram was designed to provide parents with skills to reduce the noncompliance of their children with conduct disorder, to enhance maternal parenting skills, and to improve parent-child communication.

7. Webster-Stratton, Kolpacoff, and Hollinsworth (1988, 1989) and Webster-Stratton (1990b) evaluated the effectiveness of three parent training treatment methods to reduce conduct disorders and to improve parents' behaviors and perceptions. The treatments consisted of individually administered, videotaped modeling sessions; therapist-led group discussion and videotaped modeling; or therapist-led group discussion.
8. Webster-Stratton (1994) evaluated the effectiveness of a basic parenting skills training program of videotaped and group discussion designed to model parenting skills as compared with a program that added a broader-based, videotape and group discussion component designed to train parents to cope with interpersonal distress through improved communication, problem solving, and self-control skills.

The following research focused on parent training with separate child training:

1. Horn et al. (1991) and Ialongo et al. (1993) evaluated the effectiveness of high- or low-dose methylphenidate treatment either alone or in combination with a behavioral parent training and child cognitive-behavioral self-control instruction program for families with children having attention deficit hyperactivity disorder.
2. Tremblay et al. (1991) and Tremblay, Pagani-Kurtz, Masse, Vitaro, and Pihl (1995) evaluated the effectiveness of parent and child training on the reduction of antisocial behavior among disruptive boys.
3. Dishion and Andrews (1995) evaluated a program designed to provide a supportive, nonstigmatizing intervention for high-risk families to promote adaptation in the adolescent years by reducing maladaptive processes. The parent-focused curriculum targeted parent family management practices and communication skills. The teen-focused intervention targeted self-regulation and prosocial behavior within the context of parent and peer environments.

Numerous studies examined family skills training interventions.

1. Bank, Marlowe, Reid, Patterson, and Weinrott (1991) compared the effectiveness of a parent training intervention with services traditionally provided by the juvenile court and the community.
2. Baum and Forehand (1981) examined the long-term maintenance effect of a parent training program on mother-child interactions, parents' perceptions of child adjustment, and parent satisfaction.
3. Forehand and Long (1988) and Long, Forehand, Wierson, and Morgon (1994) conducted two follow-up evaluations of subjects who had participated in a series

of parent training programs several years earlier (McMahon & Forehand, 1984). Parents had been taught to recognize and reward appropriate behavior, ignore minor inappropriate behavior, issue commands and reinforce compliance, and use the discipline technique of "time-out" for noncompliance.

4. McMahon, Forehand, and Griest (1981) examined the efficacy of incorporating formal training in social learning principles into a behavioral parent training program for mothers of children referred for the treatment of noncompliance and other oppositional behaviors.
5. Rogers, Forehand, Griest, Wells, and McMahon (1981) examined whether parents of low, middle, and upper socioeconomic status differed in their interactions with and perceptions of their children and in their responsiveness to parent training.
6. Fleischman (1981) evaluated the effectiveness of parent-mediated treatment of boys with conduct problems on changes in child aversive behavior and parental perceptions of child behavior.
7. Kazdin, Siegel, and Bass (1992) assessed the effects of parent management training and cognitive-behavioral problem-solving skills training on children referred to a psychiatric facility for severe antisocial behavior.
8. Szapocznik et al. (1986) compared the effectiveness of bicultural effectiveness training and structural family therapy in improving measures of family interactional patterns, family levels of acculturation and biculturalism, and adolescent behavior problems and psychopathology.
9. Szapocznik, Rio, et al. (1989) compared the effectiveness of a minimum-contact control condition with family effectiveness training that targets maladaptive family interactions and intergenerational and intercultural conflicts.
10. Santisteban et al. (1996) examined the effectiveness of engagement family therapy, which combines brief strategic family therapy with strategic structural systems engagement as a method to bring into and engage in treatment those families described as "difficult to reach."

The following four studies examined interventions that consisted of parent training plus family skills training:

1. Bernal, Klinnert, and Schultz (1980) compared the effectiveness of behavioral parent training and client-centered parent counseling in reducing problem behaviors among children with conduct disorder.
2. Dumas (1984) evaluated the effectiveness of a behavioral parent training program designed to teach parents to respond appropriately to and modify the aggressive and oppositional behavior of their children.
3. Hughes and Wilson (1988) compared the effectiveness of contingency management training and communication skills training to modify the behavior of children with conduct disorder.

4. Wahler, Cantor, Fleischman, and Lambert (1993) compared the impact of parent training alone and in combination with "synthesis teaching," a process in which the therapist and parent discuss the parent's child care experiences and other experiences that influence parenting.

The following practice evidence for parent and family skills training as indicated preventive measures focused on family skills training:

> The Nurturing Program for Parents and Children was designed to modify abusive or potentially abusive parent-child interactions by providing training on developmental expectations, empathy, behavior management, and self-awareness.

Abstracts of the research and practice cases used in this analysis are provided at the end of the chapter.

Although the effectiveness of the two clusters that comprise this approach are evaluated individually, lessons learned and suggestions for future research are presented collectively below.

Lessons Learned From Evidence Reviewed for Prevention Approach 1: Parent and Family Skills Training (Clusters 1 and 2)

The research and practice evidence reviewed in this prevention approach provides for several lessons learned, as follows:

1. Research demonstrates that **parent and family skills training has positive effects on measures related to parents, the family, and children**. When the research is taken as a whole, positive outcomes include increases in parenting skills, problem-solving skills, child management skills, and coping skills; and improvements in attitudes, including acceptance of children (Aktan et al., 1996; Catalano et al., 1995; Felner et al., 1994; Forehand & Long, 1988; Guerney, 1977; Guerney & Wolfgang, 1981; Kosterman et al., 1996, Kosterman et al., 1997; Kumpfer & DeMarsh, 1987; McMahon et al., 1981; Myers et al., 1990; Rogers et al., 1981; Spoth et al., 1995; Spoth & Redmond, 1996; Spoth, Redmond, & Shin, in press; Szapocznik, Rio, et al., 1986; Szapocznik, Santisteban, et al., 1989; Thompson et al., 1993; Webster-Stratton, 1990a; Wolchik et al., 1993).
2. Many studies have shown that **parent and family skills training can improve parent-child family relations**, increase family cohesion, and decrease family problem behaviors, family conflict, and substance abuse (Aktan et al., 1996; Anastopoulos et al., 1993; Dishion & Andrews, 1995; Dubey et al., 1983; Forehand & Long, 1988; Kumpfer et al., 1991; Kumpfer & DeMarsh, 1987; Long et al., 1994; Myers et al., 1990; Rogers et al., 1981; Szapocznik et al., 1989a; Webster-Stratton, 1984, 1994; Wolchik et al., 1993).

Level of Evidence for Approach 1, Cluster 2: Parent and Family Skills Training as Indicated Preventive Measures

The research evidence in this cluster focuses on parent and family skills training as indicated preventive measures—interventions involving parents and children in structured activities designed to improve family functioning and parenting skills, delivered to families in which there are children (and possibly parents) with identified, diagnosed problem behaviors and who are at high risk for substance abuse problems.

The research and practice evidence reviewed indicates that it is possible to successfully implement parent and family skills training as indicated preventive measures, as follows:

- There is **strong evidence** that these interventions can improve adverse child and parenting behaviors that are specifically targeted for improvement, including child problem behavior, parenting skills, and family functioning issues, such as family organization, communication, bonding, and conflict.
- There is **strong evidence** that these interventions have positive and lasting effectiveness in improving parenting skills and behaviors and reducing diagnosed problem behaviors in children.
- There is **suggestive but insufficient evidence** that, when specifically targeted, these interventions can reduce parents' stress, depression, and alcohol and substance use; improve children's self-esteem; and promote improvements related to differences in acculturation between parents and children.

3. **Positive outcomes for children include increases in prosocial behaviors and decreases in adverse behaviors** such as hyperactivity, social withdrawal, aggression, and delinquency (Aktan et al., 1996; Anastopoulos et al., 1993; Arnold et al., 1975; Bank et al., 1991; Baum & Forehand, 1981; Dishion & Andrews, 1995; Dubey et al., 1983; Felner et al., 1994; Fleischman, 1981; Forehand & Long, 1988; Kazdin et al., 1992; Knapp & Deluty, 1989; Kumpfer & DeMarsh, 1987; Kumpfer et al., 1991; Long et al., 1994; McMahon et al., 1981; Myers et al., 1990; Patterson, 1974, 1975; Szapocznik, Rio, et al., 1986; Thompson et al., 1993; Webster-Stratton, 1984, 1990a, 1990b, 1994; Webster-Stratton et al., 1988, 1989).
4. **Research on family skills training is suggestive of a relationship between increases in parental effectiveness and decreases in parental substance use** (Aktan et al., 1996; Catalano et al., 1995). However, the nature of this relationship is unknown. Some positive effects may be due to children's exerting pressure on parents to stop substance use, a higher parental awareness of the effects of their drug use on family dynamics, and improvement in parents' communication skills.

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5. Research yields suggestive findings that **among parents being treated for substance abuse problems, family skills training may have an impact on substance use above and beyond the treatment program effect** (Aktan et al., 1996; Catalano et al., 1995). Enhancing addiction treatment by adding parenting or family skills training may reduce the likelihood of relapse. This may be particularly true for women because of an enhanced ability to communicate and manage the family efficiently following family skills training.
6. There are research findings indicating that **videotaped training and education components can be effective and cost-efficient elements of parent training interventions** that include therapist consultation and group discussion and can promote parental modeling and improve parenting skills (Webster-Stratton, 1984, 1990a, 1990b, 1994; Webster-Stratton et al., 1988, 1989).

Suggestions for Future Research for Prevention Approach 1: Parent and Family Skills Training (Clusters 1 and 2)

The research and practice evidence reviewed in this prevention approach provides for several suggestions for future research.

1. Research and practice evidence suggests that parent and family skills training reduces social isolation among parents and families (Kumpfer & DeMarsh, 1987; Families and Schools Together). However, **research is needed on the long-term impact of improvements in the social health of families and the reduction of social isolation as it relates to the prevention of substance abuse.**
2. Future research on parent and family skills training should include ways to **improve the effectiveness of substance abuse prevention programs for specific populations by making them culturally appropriate and regionally and developmentally relevant** (Guerney, 1977; Kumpfer et al., 1991; Kumpfer & DeMarsh, 1987; Myers et al., 1990). First, research is needed to identify the specific needs of special populations. Second, research is needed to identify interventions that best meet these needs. Third, research is needed to investigate optimal ways to deliver these interventions to special populations. Finally, research is needed to compare the effectiveness of culturally tailored parenting programs with that of generic training programs presented to specific and special populations.
3. There is a need for **further research on parent and family skills training to examine issues such as recruitment and retention, expected outcomes, and content and delivery styles for different types of training** (Bernal et al., 1980; Dishion & Andrews, 1995; Fleischman, 1981; Guerney & Wolfgang, 1981; Horn et al., 1991; Kumpfer & DeMarsh, 1987; Myers et al., 1990; Santisteban et al., 1996; Spoth et al., 1995; Spoth & Redmond, 1996; Szapocznik, Santisteban, et al., 1989; Webster-Stratton, 1990a; Wolchik et al., 1993).

4. Although many parent and family skills training studies demonstrate short-term positive outcomes, some of which are maintained over time, a few demonstrate positive effects at long-term follow-ups that were not evident after treatment or at a short-term follow-up (Patterson, 1974, 1975; Webster-Stratton et al., 1988, 1989; Webster-Stratton, 1990b). Therefore, **research should examine the long-term effects of family skills training**, including effects not obvious during short-term follow-up. In particular, research should examine the effects of family skills training on substance abuse, delinquent behaviors, and academic performance in children through the late adolescent years and beyond. It is important to measure parent as well as child outcomes.
5. Although the development of communication skills is an effective prevention effort, evidence suggests that contingency management training is more effective (Hughes & Wilson, 1988). **More research should compare the effectiveness of communication skills training and that of contingency management interventions for specific developmental periods**.
6. **Research should be undertaken to examine whether communication skills training is especially valuable at specific developmental periods in the life of the child**, such as during late adolescence (Dishion & Andrews, 1995; Dubey et al., 1983; Hughes & Wilson, 1988; Klein & Swisher, 1983; Webster-Stratton, 1990a).
7. **Future research on parent and family skills training should be conducted in partnership with parents and other stakeholders in the community the training is intended to benefit.**

The following section consists of recommendations, observations, and interpretations made by Expert Panel members concerning the Parent and Family Skills Training approach. The basis for these recommendations includes the research and practice evidence reviewed in the Analysis of Evidence section, research and practice evidence not reviewed in this chapter, and the Prevention Enhancement Protocols System (PEPS) Expert Panel members' expertise, experiences, and opinions.

Recommendations for Prevention Approach 1: Parent and Family Skills Training (Clusters 1 and 2)

The Expert Panel's recommendations regarding parent and family skills training focuses on topics such as cultural content, environmental context, multicomponent programs, and program retention, as follows:

1. The concept underlying this prevention approach has great potential and is expressed in various models of parent and family skills training interventions. Some models combine parent training and children's skills training with family therapy. Such comprehensive family skills training pro-

grams can address a broad array of family risk and protective factors for substance abuse. These programs can target the total family system, thereby preventing "family sabotage effects" that can emerge when only the individual child or parent is treated. Family skills training and parent training programs can be implemented more easily than family therapy because they require less skilled staff and are highly structured. Further, these programs can be modified and adapted with regard to ethnic and cultural appropriateness, regional applicability, and developmental relevance.

2. During planning and implementation of parent and family skills training programs, relevant cultural content should be incorporated into the program that will initiate positive changes in family dynamics and roles. Szapocznik and colleagues found that maximizing families' cultural strengths promotes better interactions within the family. Their research suggested that families who are not bicultural (i.e., effective in integrating traditional cultural norms with the norms of American society) may experience behavioral problems that place youth at risk for adolescent substance abuse. On the basis of this research, Szapocznik, Santisteban, Kurtines, Perez-Vidal, & Hervis (1984) and Szapocznik and Kurtines (1993) developed an intervention known as "bicultural effectiveness training" (BET), in which program content promotes family interactional processes that enhance biculturalism. BET was tested in a randomized study and found to be as effective as traditional family therapy (Szapocznik et al., 1996; Szapocznik, Murray, et al., 1986; Szapocznik, Santisteban, Rio, Perez-Vidal, & Kurtines, 1986).
3. In evaluating research on parents who are not successful in parent or family skills training, it is important to consider factors other than the failure of a parent training class to teach new skills. Rather, research suggests that a lack of success in parenting training may relate to serious problems in the parents' social lives and environmental context. These include problems such as violence in the family, unsafe neighborhoods, and poverty-related stresses that impede full engagement and participation in training. Other factors include poor parental communication and the class not being tailored to the parents' specific needs, including culture and language.
4. Research on parent and family skills training suggests that multifocus prevention efforts are superior to single-focus interventions. For example, superior outcomes are associated with parent training interventions that address multiple family and community contexts. Reducing social isolation, building peer support networks, increasing awareness of commu-

nity resources, and teaching how to cope with depression and parenting stress exemplify some of the tasks a multifocus prevention effort might address.

5. Research demonstrates that parents of children with conduct problems, even those with multiple problems, are often successfully retained in parent training at high rates. This is in contrast to an opinion frequently expressed by prevention specialists that it is nearly impossible. It may be that parent training promotes parental retention because it is viewed by parents as a helpful and acceptable form of intervention and may increase parental hope and a sense of competence.
6. Parent training interventions are more effective for those with younger children than for those with older children with conduct problems. Prevention approaches should incorporate the concept that early intervention is superior to later intervention.
7. Prevention efforts that focus on parenting skills should include information about community resources that provide support to the family, especially those that help meet the biopsychosocial, cultural, and spiritual needs of families. For this reason, it is recommended that prevention practitioners and service providers develop strong mutual networks and become thoroughly acquainted with all available and relevant community resources.
8. Experience and research suggest that conducting interventions in the home is associated with certain advantages, such as the ability to involve all family members and to gain an understanding of a family's dynamics over time (Baum & Forehand, 1981; Catalano et al., 1995; McMahon et al., 1981; Patterson, 1974, 1975). Home-based interventions heighten the capacity to engage the entire family in the intervention and can offer improved opportunities to promote trust between the service provider and the client.

PREVENTION APPROACH 2: FAMILY IN-HOME SUPPORT AS INDICATED PREVENTIVE MEASURES

This approach attempts to prevent substance abuse among children and adolescents aby providing comprehensive, intensive, multipurpose services in the home and addressing a range of family problems, typically involving all family members.

Conceptual Framework for Approach 2: Family In-Home Support as Indicated Preventive Measures

Families with multiple risk factors or a high level of risk for a single factor have numerous interrelated problems and needs that may benefit from being addressed concurrently. Many of these problems and needs have contexts both within and

outside of the family. As indicated preventive measures, family in-home support provides parents and/or families with services that are tailored to their specific needs and that are intended to help stabilize the family environment so that parents are better able to nurture and protect their children. These intensive and comprehensive services are provided for several months to a year; are generally intended to serve multiple purposes; and address a range of family risk factors and immediate needs, such as transportation, food, clothing, advocacy, crisis intervention, counseling, and referral. They typically provide assistance to help keep the family intact. Services are received in the home, and family members are linked to other services outside the home. Among the most common goals of family in-home support are decreasing the likelihood of domestic violence, child abuse or neglect, or placement of children in foster homes or in institutions for juvenile delinquency.

Overview of the Evidence for Approach 2: Family In-Home Support as Indicated Preventive Measures

Family preservation was the primary objective of the interventions reviewed in this prevention approach. These interventions encompassed changes such as the acquisition of skills for parents, decreases in child problem behaviors, and family reunification. Expected changes for parents included acquiring or improving parenting skills related to discipline, family relations, communication, and anger management, and decreasing the likelihood of parents engaging in child abuse and neglect. For youths, expected changes included diminishing rates of arrests and criminal activities among juvenile offenders. Expected changes for the entire family included preventing children from being removed from the family and, in other cases, reuniting previously removed children with their family.

Activities employed in these interventions included provision of direct services and social services. Direct services included transportation, cash assistance, clothing, food, and help with home repairs. Social services included individual and family counseling, crisis intervention, behavior management training, reunification services, referral to substance abuse treatment, and case management services.

The following research studies examined the effectiveness of family in-home support as indicated preventive measures:

1. Henggeler, Melton, and Smith (1992) and Henggeler, Melton, Smith, Schoenwald, and Hanley (1993) evaluated the effectiveness of multisystemic therapy, a family- and home-based treatment designed to intervene directly in systems and processes such as parental discipline, family affective relations, peer associations, and school performance, which are known to be related to antisocial behavior in adolescents.

2. Borduin et al. (1995) replicated the Henggeler et al. (1992) study and examined the use of multisystemic therapy with juvenile serious offenders.
3. Walton, Fraser, Lewis, Pecora, and Walton (1993) compared the effectiveness of an in-home, family-based reunification service with routine out-of-home reunification services in returning children to and keeping them in their homes. Services included transportation, cash assistance, clothing, basic food items, household repairs, and training in such skills as communication, parenting, and anger management.
4. Lutzker, Wesch, and Rice (1984) and Lutzker and Rice (1987) compared the effectiveness of conventional child protection services with that of an in-home ecobehavioral approach to the treatment and prevention of child abuse and neglect. The ecobehavioral intervention was a comprehensive, multiple-setting behavior management program that provided services directly in clients' homes, schools, foster care settings, and day-care settings.
5. Berry (1992) evaluated the effectiveness of intensive family preservation services to prevent out-of-home placement of children in San Francisco and Oakland, California, and to identify family and service characteristics associated with successful family preservation.
6. Haapala and Kinney (1988) examined the effectiveness of an intensive home-based family preservation program designed to treat status-offending youths in danger of imminent out-of-home placement as well as their families.

The following two practice cases were examined:

1. The In-Home Care Demonstration Projects involved three self-care projects for latchkey children and eight in-home care projects to provide intensive, short-term services to families of children at imminent risk of removal from the home.
2. The Intensive Family Preservation Services of the State of Connecticut are targeted to families whose children are at imminent risk of removal from their homes.

Abstracts of the research and practice cases used in this analysis are provided at the end of this chapter.

Lessons Learned From Evidence Reviewed for Approach 2: Family In-Home Support as Indicated Preventive Measures

The research and practice evidence reviewed in this prevention approach provides for several lessons learned.

1. Although family in-home support is currently a popular prevention approach, the body of relevant research, especially controlled studies, is meager. **One barrier to conducting research with experimental designs is the ethical issue of**

Level of Evidence for Approach 2: Family In-Home Support as Indicated Preventive Measures

The research and practice evidence for this approach concentrates on family in-home support as indicated preventive measures—comprehensive, intensive, multipurpose services provided in the home and designed to address a range of family problems, typically involving all family members.

The research and practice evidence reviewed indicates the following:

- There is **medium evidence** that multisystemic therapy, provided in the home, is effective in reducing juvenile criminal activity and rearrest.
- There is **medium evidence** that multisystemic therapy, provided in the home, is effective in improving family characteristics associated with juvenile antisocial behavior, such as family cohesion and symptomatology.
- There is **medium evidence** that home-based family preservation services are effective in preventing out-of-home placement and reducing the number of days of placement.

assigning families with identified needs and problems to a nontreatment control group. However, the use of a comparison treatment condition as a control group has been underutilized.

2. Another barrier to research is the complexity and interrelatedness of problems experienced by families receiving in-home support services and the ethical need to respond to all of these problems as soon as possible. **It is difficult to formulate a research design that teases out the differing effects of the services and intervention elements** to determine whether there is a priority or hierarchy of needs, or that measures interrelationships of specific elements of the intervention and specific outcomes. Thus, only very broad conclusions can be reached about the effects of an intervention.

Suggestions for Future Research for Approach 2: Family In-Home Support as Indicated Preventive Measures

The research and practice evidence reviewed in this prevention approach provides for two suggestions for future research:

1. The level of evidence for the effectiveness of family in-home support studies is not strong, because experimental studies having a common focus are few in number. When a family experiences a serious crisis that requires out-of-home placement of children, there is a possibility that, for some families, the crisis will be resolved or will fade with time, even without treatment. Well-executed intervention research with families in crisis must take into consideration the potential bias of misattributing all or most of the crisis resolution and family stabilization to the intervention, as opposed to the passage of time. To avoid this bias,

researchers can include wait-treatment, alternative treatment, or no-treatment comparison groups (Borduin et al., 1995; Henggeler et al., 1992, 1993; Walton et al., 1993). However, many researchers of family in-home support feel that it is unethical to withhold immediate intervention from families who are in crisis and have demonstrable needs. Nonetheless, **it is recommended that, when ethically possible, future research on family in-home support should make greater use of comparison groups**. Overall, the field of in-home family support can benefit greatly from experimental research designs.

2. **Research on family in-home support should measure a range of variables to examine the effectiveness of interventions.** Suggested measures include mediating variables (e.g., social support networks and family functioning, conflict, and bonding) and ultimate outcomes (such as family stability, child problem behaviors, staying in school, academic success, prosocial skills, delinquency, and avoidance of out-of-home placement). **Research efforts should include multiple data sources**, such as parent and child self-reported behavior, observed behavior, and archival record data (Berry, 1992; Borduin et al., 1995; Haapala & Kinney, 1988; Henggeler et al., 1992, 1993; Lutzker et al., 1984).

The following section consists of recommendations, observations, and interpretations made by Expert Panel members concerning the Family In-home Support approach. The basis for these recommendations includes the research and practice evidence reviewed in the Analysis of Evidence section; research and practice evidence not reviewed in this chapter; and the PEPS Expert Panel members' expertise, experiences, and opinions.

Recommendations for Prevention Approach 2: Family In-Home Support as Indicated Preventive Measures

The Expert Panel's recommendations regarding family in-home support focuses on issues such as family-centered assessments, strength-based assessments, fragmentation of services, neighborhood-based family workers, and a variety of family preservation efforts, as follows:

1. Families should be encouraged to become integral partners in the assessment process. The assessment should include the family's perspectives on the nature of the problems being addressed and the ways in which problems should be solved. **The assessment process should reflect families' perspectives about their needs, goals, objectives, and timelines.** Assessments and service plans should address the needs of the entire family. Conducting assessments in partnership with families helps to clarify the roles and responsibilities of family members and service providers. It also helps families increase their capacity to manage their own responsibilities.

2. **Assessments and service plans should consider the context of the family's community** and should include informal supports, such as family members, churches, and neighbors.
3. Historically, assessments have often focused predominantly on the family's problems and deficits and the provision of services to solve those problems. Experience suggests that **the usefulness of assessments and subsequent family service plans is maximized when they build upon areas of strength, competence, and capability**, as well as address problem areas. Although a family in crisis may have areas of weakness, these areas can be considered opportunities for improvement rather than deficits. Further, it is important to identify and validate the strengths that are helping the family survive. Evaluation of family strengths should include an assessment of both the family's readiness and willingness to change and the parents' capacity to invest in acquiring parenting skills. When a family's strengths are enhanced and weaknesses reduced, the capacity to thrive is enhanced.
4. Families in crisis must often negotiate a maze of complicated and differing health and social service systems when they are least able to identify and gain access to the services they need. These families routinely work with several provider representatives, frequently filling out duplicative agency-specific paperwork. This **fragmentation of service systems creates barriers to the formation of effective partnerships. Attrition and recidivism are often related to these barriers, which should be removed wherever possible**, with the goal of making integrated and comprehensive resources available for families.
5. **Neighborhood-based family workers should be recruited to help families and service providers integrate and manage services.** This could enhance the capacity of care providers to form alliances with formal and informal neighborhood-based support networks to strengthen family functioning. It also may help provide ongoing emotional and informational support and consistent relationships.
6. Family preservation programs vary with respect to theoretical orientation, length and intensity of service, and populations served (Henggeler, Schoenwald, Pickerel, Rowland, and Santos, 1994). These variations reflect differences in program goals, including an emphasis on treatment versus direct and support services, such as collaboration with health care, housing, and employment agencies. For example, Nelson, Landsman, and Deutelbaum (1990) concluded, on the basis of a review of 11 studies involving child welfare populations, that intensive family treatment programs appeared to be more effective than crisis interven-

Level of Evidence for Approach 3: Family Therapy as Indicated Preventive Measures

The research evidence for this approach focuses on family therapy interventions for indicated populations—interventions to improve family dynamics and interpersonal behavior in families with children who have diagnosed behavioral or emotional problems that increase their risk of developing substance abuse–related disorders.

The research evidence reviewed indicates the following:

- There is **medium evidence** that among this population of families, family therapy results in family interaction improvements, such as enhanced parenting skills with adolescents, improved family communication, increased parental knowledge about reducing antisocial behavior in their adolescent children, improved perceptions and attitudes of parents and adolescents about each other, and reductions in inappropriate parental control over adolescents.
- There is **strong evidence** that among this population of families, family therapy reduces the rates of recidivism in delinquent teenagers.

problems and recidivism rates, improving the functioning of juvenile offenders, and preventing initiation of substance use.

The following studies examined the effectiveness of family therapy as an indicated preventive measure:

1. Alexander and Parsons (1973) evaluated the effectiveness of a short-term, behaviorally oriented family intervention for families with delinquent teenagers. The intervention was designed to reduce maladaptive interaction patterns in families, increase mutual positive reinforcement, and reduce recidivism rates among the teenagers.
2. Barton, Alexander, Waldron, Turner, and Warburton (1985) reported on three studies that evaluated the effectiveness of functional family therapy used by undergraduate paraprofessional therapists and foster care case-workers in the treatment of seriously delinquent youth who had recently been released from a State criminal justice institution.
3. Gordon, Arbuthnot, Gustafson, and McGreen (1988) compared the effectiveness of standard probation with a home-based, time-unlimited, behavioral-systems family therapy model in the treatment of juvenile offenders of low socioeconomic status.
4. Szapocznik, Murray, et al. (1989) compared the effectiveness of structural family therapy, psychodynamic child therapy, and a recreational control condition in the reduction of behavioral and emotional problems and improvements in child and family functioning among Hispanic boys who had been diagnosed with opposition disorder, anxiety disorder, conduct disorder, or adjustment disorder.
5. Santisteban et al. (1997) evaluated the effectiveness of brief structural family therapy to prevent drug use initiation among Hispanic and African-American youth.
6. Henggeler et al. (1986) compared the effectiveness of multisystemic family-ecological therapy and an alternative therapy in improving family dy-

tion and home-based programs. **More research should be done on the variations of family preservation** to determine what efforts are most successful, and under what conditions.

PREVENTION APPROACH 3: FAMILY THERAPY AS INDICATED PREVENTIVE MEASURES

This approach attempts to prevent substance abuse among children and adolescents by providing family therapy to families with children who have diagnosed behavioral or emotional problems that increase their risk of developing substance abuse-related disorders, with the goal of improving family dynamics and interpersonal behavior.

Conceptual Framework for Approach 3: Family Therapy as Indicated Preventive Measures

Families experiencing multiple risk factors or high levels of a single risk factor often have poor communication skills, negative perceptions about and behavior toward one another, and other dysfunctional family dynamics. This is especially true of families who have children with behavioral or emotional problems that increase their risk of developing substance abuse problems. As an indicated preventive measure, family therapy helps family members develop interpersonal skills to improve communication among family members and improve family dynamics. This approach can be used to help family members improve their perceptions of one another, change maladaptive functioning, decrease negative behavior, and create skills for healthy family interaction. It can also be used to enhance parenting skills and reduce inappropriate parental control over children.

Although approaches to family therapy differ with respect to theories and goals, they commonly seek to restructure behavior patterns among family members, change members' perceptions of one another, and improve their roles and functions. Generally, family therapy also seeks to improve the awareness and insight of participants, especially regarding dysfunctional and maladaptive interactions and behaviors.

Overview of the Evidence for Approach 3: Family Therapy as Indicated Preventive Measures

The objectives of the interventions reviewed focused on improving family functioning and reducing children's recidivism and problem behaviors. Expected outcomes for families included increasing mutual positive reinforcement and decreasing maladaptive interaction patterns, improving family dynamics in families with juvenile offenders or adolescents with antisocial behaviors, acquiring skills, improving communication, learning effective discipline methods, and learning self-management skills. Expected outcomes for youth included reducing behavioral and emotional

namics in families of juvenile offenders and in improving the behavior problems of these juveniles.

7. Mann, Borduin, Henggeler, and Blaske (1990) evaluated the effectiveness of multisystemic therapy in the treatment of adolescent antisocial behavior by using the therapy to treat "cross-generational coalitions," in which a parent, usually the mother, forms a stable coalition with the child against the other parent in family transactions (as opposed to stable mother-father coalitions).
8. McPherson, McDonald, and Ryer (1983) compared the effectiveness of short-term, intensive family counseling with casework-oriented probation for youthful offenders. The therapy was designed to help participants acquire new skills and ideas, understand and appreciate one another, improve communication, learn effective discipline methods, learn self-management skills, and examine their own and other family members' expectations.
9. Springer, Phillips, Phillips, Cannady, and Kerst-Harris (1992) evaluated the effectiveness of an organized art and play therapy, embedded within peer group and family therapy, on the competencies and problem behaviors of children of individuals with substance abuse problems.

Abstracts of the research used in this analysis are provided at the end of this chapter.

Lessons Learned From Evidence Reviewed for Approach 3: Family Therapy as Indicated Preventive Measures

The research reviewed in this prevention approach provides for several lessons learned:

1. Research demonstrates that **family therapy is an effective resource for improving family functioning**, increasing parenting skills, and decreasing recidivism of juvenile offenders (Alexander & Parsons, 1973; Barton et al., 1985; Gordon et al., 1988; Henggeler et al., 1986; Mann et al., 1990; Santisteban et al., 1997; Szapocznik, Murray, et al., 1989).
2. Research demonstrates that **family therapy can be embedded within multicomponent prevention efforts** (Gordon et al., 1988; Springer et al., 1992). Although it has not yet been the focus of research, family therapy can be a component in prevention efforts that include in-home family support and school-based problem-solving counseling.
3. For the most part, empirical investigations of family therapy have focused on families with adolescents, many of whom are juvenile offenders (Alexander & Parsons, 1973; Barton et al., 1985; Gordon et al., 1988; Henggeler et al., 1986; McPherson et al., 1983). These youth are often clinically challenging and have behavioral disorders of moderate to severe intensity. **The applicability of family therapy with younger children who have less severe behavior problems has not been as thoroughly investigated**, but the findings of Szapocznik and others are encouraging.

Suggestions for Future Research for Approach 3: Family Therapy as Indicated Preventive Measures

The research reviewed in this prevention approach provides for several suggestions for future research.

1. Except for the work of Szapocznik, **there has been little evaluation of, and therefore more research is needed on, the cultural appropriateness of family therapy programs**.
2. **More research based on experimental designs is needed to evaluate the use of family therapy as an indicated preventive measure with regard to substance abuse** (Alexander & Parsons, 1973; Szapocznik, Murray, et al., 1989).
3. Additionally, **research should use a wider variety and a greater number of sources for data collection**. These include self-reports of children and family members, direct observations of parent-adolescent interactions, and school and teacher reports, as well as information from collateral individuals, testing batteries, archival records, and court reports and records (Alexander & Parsons, 1973; Barton et al., 1985; Klein et al., 1977; Santisteban et al., 1997; Springer et al., 1992; Szapocznik, Murray, et al., 1989).
4. **Additional research is needed on the impact of family play therapy** on child outcomes with regard to substance abuse prevention (Springer et al., 1992).
5. **Research is needed on the use of neighborhood-based family workers** in outreach engagement and retention of families in therapy.
6. In the substance abuse and mental health fields, there is substantial literature on the effectiveness of various types of family therapies that is beyond the scope of this guideline. Most of these therapies can be described as traditional psychotherapeutic therapies. However, there are several nontraditional family-centered therapies, often spiritually based, such as interventions delivered within Native American and other ethnic and cultural groups. These **nontraditional family therapies should be subjected to research regarding their effectiveness and implementation**.
7. **Research has not yet explored ways that family therapy can be joined with other prevention efforts and the ways in which the effectiveness of prevention can be enhanced through such multicomponent activities.**

The following section consists of recommendations, observations, and interpretations made by Expert Panel members concerning the Family Therapy approach. The basis for these recommendations includes the research and practice evidence reviewed in the Analysis of Evidence section, research and practice evidence not reviewed in this chapter, and the PEPS Expert Panel members' expertise, experiences, and opinions.

Recommendations for Prevention Approach 3: Family Therapy as Indicated Preventive Measures

The Expert Panel's recommendations on family therapy focus on issues such as interagency collaboration, program engagement and retention, cultural context, and the appropriateness of including young children.

1. Because families in crisis are likely to receive services from multiple agencies, **family therapy providers should be linked with social and other service agencies through interagency collaboration and coordination and integrated case management**—systemic strategies that address the linkages among programs, agencies, and departments. Regardless of the specific model, interagency collaboration and coordination may be facilitated by formal or informal interagency agreements, including memoranda of understanding, case management meetings, and regular multidisciplinary interagency training. A special contract (e.g., a qualified service organization agreement) is a common method for agencies to document their agreement on the provision of services, including the development of joint referral, intake, and assessment procedures.
2. Family therapy is still viewed negatively by people of some ethnic groups, socioeconomic strata, and regions. Thus, their engagement and retention in family therapy can be challenging but can be enhanced by reducing negative attitudes toward therapy and by labeling the program in a culturally consonant way. When designing therapy-based research and interventions, **researchers and providers should educate the target population and the community about the value of family therapy and demystify the therapy process**. Neighborhood volunteers and community outreach workers can be trained to provide lectures on depression, anxiety, substance abuse, and child problem behaviors. Working in close partnership with churches, schools, and community centers, outreach workers may be able to engage families skeptical of family therapy. It is not necessary to make potential participants understand therapeutic jargon. Rather, interventions can be packaged in ways that are acceptable to community members.
3. **Practitioners should be knowledgeable and competent in the cultural values, beliefs, and traditions of the families they serve and knowledgeable about the resources available in the community** in which the family lives.
4. Family therapy that requires a participant's understanding of complex family and interpersonal dynamics may not be developmentally appropriate for some young children. Therefore, **the selection of family therapy**

and other interventions should take into consideration the appropriateness of specific interventions for child participants.

GENERAL SUGGESTIONS FOR FUTURE RESEARCH FOR FAMILY-CENTERED PREVENTION APPROACHES

All of the Expert Panel suggestions on future research mentioned earlier are specific to one of the three prevention approaches evaluated in this chapter. The following suggestions are applicable to more than one prevention approach:

1. Much family-centered prevention research has been conducted in university-based settings. **There is a need to develop, assess, and evaluate procedures for dissemination of research to the community.**
2. Most family-centered prevention research has been conducted in urban environments. **There is a need for research and practice evidence to evaluate whether programs can be effectively implemented in suburban and rural areas.** For example, there is a need to determine whether such programs can overcome rural logistical problems, such as transportation difficulties and a lack of trained professionals.
3. The outcomes and conclusions reached in the studies reviewed in this chapter are primarily based on White families of mixed socioeconomic status. **The generalizability of the conclusions described in this chapter to diverse ethnic and cultural groups is unknown.** In addition, although several important research studies have been completed on family-centered interventions for specific cultural groups, additional studies are needed for African-American, Hispanic, Asian-American, and American Indian populations and their subcultures. Research should be conducted to evaluate the differences between urban and reservation-based American Indians.
4. The effectiveness of family-centered prevention interventions needs to be examined separately for girls and boys. Just as there may be different developmental pathways to antisocial behavior and substance abuse for girls and boys, interventions may also be differentially effective. Thus, **research should examine the effectiveness of and need for gender-specific prevention interventions**.
5. There is a **need to examine mechanisms related to effective recruitment, engagement, and retention** for family-centered interventions. Also, research should address the generalizability of family-centered outcomes to contexts such as schools, churches, and recreation centers.
6. Although direct behavioral observations can be expensive and labor intensive, **family-centered prevention researchers should consider including behavioral observation in natural settings, such as the home**, as well as in clinical and other structured settings.

7. **There is a need to evaluate the value and role of formal and informal social support systems** in a community-based context with regard to family-centered prevention interventions.
8. **Both researchers and practitioners should investigate the applicability and efficacy of family-centered prevention approaches for families at various levels of functioning.** Results of such research should help to determine the most efficient and cost-effective intervention approach for families at different levels of functioning. For example, it would be useful to compare family therapy, family skills training, and parent training as selective and indicated preventive measures.
9. **There is a need for continued research regarding risk and protective factors and resiliency**. Substantial research has been conducted on risk factors, but less has been conducted on protective factors. Although resiliency appears to be a promising area of prevention and research, it is underresearched. (Chapter 5 provides a more detailed description of resiliency and related research issues.)
10. With regard to research on antisocial and other problem behaviors, delinquency, and associated substance use, there is evidence for the following:
    a. Early-onset antisocial behavior is a better predictor of continued antisocial behavior than is late-onset antisocial behavior, but more for boys than for girls. Early substance use, however, predicts continuity in both sexes.
    b. Most evidence suggests that antisocial and other problem behaviors precede later substance use rather than the reverse, at least in those youngsters who eventually engage in both.
    c. Additionally, there is evidence that progression in one category of undesirable behavior, such as substance use, is associated with an increased likelihood of persistence in other categories of behavior, such as delinquency (Loeber, 1988). Therefore, **there is a need for extended longitudinal studies that evaluate children who experience antisocial and other problem behaviors during their very early years (such as during preschool and elementary school) and that continue to follow them through their later adolescent years.** Such studies could help determine the critical pathways and developmental progression that lead from early conduct problems to more serious antisocial behaviors and substance use problems. Research has not adequately determined why certain children have conduct problems very early in life and "grow out of it," whereas a small percentage progress to worse behavior and to substance use.
11. **Research should also evaluate the interrelationships among serious childhood behavioral problems and disorders, family and ecological risk and protective factors, and the later emergence of substance use disorders.**

12. It is typical for children with antisocial and other problem behaviors to be identified and evaluated only once, while they are symptomatic. However, most of these children will "outgrow" such problems. As a result, children who experience temporary or situational antisocial and other problem behaviors are often lumped together with those who experience "stable-pervasive" problems (i.e., problem behaviors that stabilize at a very young age and progressively worsen over time and throughout developmental stages). Therefore, **there is a need for research to determine at what point between preschool and late adolescence stable-pervasive antisocial and other problem behaviors best predict such problems and substance abuse among young adults.**
13. Certain types of prevention interventions are more effective for children with particular types of behavioral problems and families, for children who are at specific stages of development, and for those who have specific risk and protective factors. Therefore, **research should continue to explore the most effective prevention interventions that match the specific needs of the target populations.**
14. **Perhaps the most important overall recommendation for future research on family-centered prevention approaches concerns the need for longitudinal studies to evaluate the effects of changes in child and family problem behavior on subsequent substance abuse.** Most of the studies of children's antisocial and other problem behaviors that were available for review focused on immediate outcomes regarding the problem behaviors of the child and the family. Some follow-up studies were conducted to determine whether outcomes were sustained a few years postintervention. Additionally, a line of etiologic research examined the connections and associations between childhood behavioral issues and later adolescent substance abuse. These etiologic studies typically attempted to determine which clusters of risk factors and associated child and family behaviors predicted adolescent substance abuse.

    The interpretation, and in some cases the purpose, of many of these studies was predicated on the hypothesis that the intervention would result in a decline in children's antisocial and other problem behaviors and that such changes would lead to the prevention, reduction, or elimination of substance abuse in later adolescence or beyond. However, this hypothesis has not been adequately tested, in part because the children were typically not followed over the course of several years. Therefore, there is a tremendous need to conduct longitudinal studies designed specifically to examine the relationships between interventions devised to treat child problem behaviors and subsequent prevention, reduction, or elimination of substance abuse during adolescence and later life.

GENERAL RECOMMENDATIONS FOR PRACTICE FOR FAMILY-CENTERED PREVENTION APPROACHES

Most of the Expert Panel recommendations described previously are specific to one of the three prevention approaches evaluated in this chapter. The following recommendations, suggestions, and interpretations are applicable to more than one prevention approach:

1. Family-centered prevention services are less likely to be successful when families have significant unmet biopsychosocial needs, such as those relating to food, shelter, employment, literacy, and physical and mental health. Indeed, **families need to have their basic needs met both during and after the intervention to increase chances for success**. Thus, whether through direct provision or through collaborative relationships with service providers, prevention practitioners have a responsibility to provide those services or the referral information and referral followup that will ensure that families receive the biopsychosocial services they require.
2. Overall, antisocial and other problem behaviors fit on a continuum from mild and occasional to severe and chronic. For a child with these problem behaviors, there are typically periods of turbulence and intervals without problem behaviors. Further, such problems exist in family and community contexts that range from healthy to unhealthy and from supportive of prevention goals to unsupportive. Therefore, **it is unrealistic to expect that a short-term (e.g., 10- to 14-session) intervention involving parent training, family skills training, or family therapy will provide a "single-shot cure" for children with conduct disorder, oppositional defiant disorder, or other problems**. This is especially true for children with severe and chronic behavioral problems in difficult family and community contexts. Rather, it is more realistic to apply such interventions in repeated and booster sessions that are tailored to the major stages of a child's development. Likewise, it is advisable to consider using other types of interventions before, during, after, or in place of family-centered approaches, depending on the specific needs of the family and child. These may include school-based student counseling, psychiatric interventions, self-help programs, and educational services.
3. Whenever possible, prevention interventions should be provided in settings and locations that are comfortable, natural, and accessible to parents and children. **Services should be provided in the community where the target population resides and in locations that are familiar to and frequented by potential participants.** It is ideal to bring the intervention to the setting where the target group exists, such as schools, jails, welfare centers, workplaces, homes, churches, and community centers.

4. **Most approaches to the prevention of substance abuse, such as school-based and community-based interventions, are compatible with and can include family-centered interventions.** For example, school-based interventions can easily be combined with parent and family skills training and even family therapy interventions. Doing so will help to reduce family-related risk factors and increase resilience factors empirically related to substance abuse.
5. **Family-centered interventions can be made more attractive and accessible by providing vital services that remove barriers to participation** such as transportation, child care, and meals.
6. **Family-centered interventions should be embedded within, and sanctioned by, the community**. This may involve conducting community outreach and educational efforts with community leaders such as ministers, physicians, and educators and conducting outreach focus groups and educational efforts with consumers.
7. Especially when involved in community education, **prevention experts should modify their roles and change the way they view themselves**. Rather than assuming authoritarian roles of those who identify problems in others and provide therapeutic services to solve these problems, professionals should assume the roles of "information provider" and "resource expert." That is, they should provide information to families about a variety of health and mental health issues, help families learn to recognize the need for professional assistance when there is a problem, inform them about options and resources in the community, and teach them how to gain access to these resources. In this way, professionals can help families make informed decisions rather than imposing decisions upon them.
8. **There is a tremendous need to build and sustain active partnerships between prevention researchers and practitioners**. These partnerships must involve the transfer of skills, knowledge, and expertise between both groups. Transfer of skills and knowledge from researchers to the community should be a capacity-building process that allows the community to develop the mechanisms required to conduct long-term research studies and to establish ongoing family-centered prevention programs. At the same time, knowledge transfer from the community to researchers should include having local community experts, residents, parents, and consumers participate in design and implementation of research. (See the discussion of evaluation in chapter 4.)

Chapter 3 Appendix: Research and Practice Evidence Abstracts

To understand the conclusions presented in this guideline, the strength of the evidence supporting those conclusions, and the evidence-based lessons learned, it is important to examine the basis on which those evaluations were made. Thus, this section presents a summary of each research study and practice case, including the study design, where appropriate; the overall intent of the study or program; and selected findings or results.

The summaries present those outcomes most relevant to the prevention approach in question, rather than all of the research and practice outcomes. In general, the quantitative outcomes reported as significant are statistically significant; the exact effect size is not reported. In most studies, evaluations were conducted at baseline and postintervention. Some also involved followup evaluations, defined here as evaluations conducted after a postintervention evaluation. The summaries do not include a critical analysis of study design biases (for research studies) or process evaluation biases (for practice cases), or of program implementation. Analysis of these and other similar characteristics were the basis for deciding whether or not a research study or practice case constituted evidence for this guideline. The summaries simply provide a "snapshot" of the research or practice evidence critically analyzed by the Expert Panel. Where possible, the timeline or chronology of the intervention and study are included in the abstract. When available and relevant, the following information is included in the summaries:

1. Ethnicity, age, and sex of study participants.
2. Inclusion criteria (e.g., students with conduct disorder).
3. Purpose and design of the study.
4. Nature of the intervention and control or comparison conditions.
5. Amount of intervention exposure (i.e., duration and number of sessions).
6. Number and interval of evaluations (e.g., baseline and followup evaluations).
7. Descriptions of what was measured at evaluations.
8. Selected outcomes.

ABSTRACTS FOR PREVENTION APPROACH 1: PARENT AND FAMILY SKILLS TRAINING

The Expert Panel recommended presenting research and the practice evidence under Approach 1 for Clusters 1 and 2 separately. The Expert Panel also recommended that the evidence be categorized according to child and parent involvement. Therefore, the research and practice evidence for Prevention Approach 1 is organized as follows:

- Research Evidence Reviewed for Approach 1, Cluster 1
  - — Parent training without child involvement.
  - — Parent training plus family skills training.
  - — Parent training with separate child training plus family skills training.
- Practice Evidence Reviewed for Approach 1, Cluster 1
  - — Parent training without child involvement.
  - — Parent training with separate child training.
  - — Family skills training.
- Research Evidence Reviewed for Approach 1, Cluster 2
  - — Parent training without child involvement.
  - — Parent training with separate child training.
  - — Family skills training.
  - — Parent training plus family skills training.
- Practice Evidence Reviewed for Approach 1, Cluster 2
  - — Family skills training.
- Collateral Evidence Reviewed for Approach 1 (Clusters 1 and 2)

Research Evidence Reviewed for Approach 1, Cluster 1

The following are abstracts of research studies that constitute the research evidence for parent and family skills training as selective and/or universal preventive measures. The research evidence for Cluster 1 is organized according to child and parent involvement: parent training without child involvement, parent training plus family skills training, and parent training with separate child training plus family skills training.

Parent Training Without Child Involvement

■ **Felner et al. (1994)**

Felner et al. (1994) evaluated the effectiveness of a work-site-based parenting program designed to improve parent-child interactions by increasing the knowledge and improving the attitudes and discipline skills of parents. In this quasi-experimental study with a rotating pretreatment and posttreatment design, 191 parents voluntarily participated in 24 1-hour sessions twice weekly for 12 weeks. Most subjects (96

percent) were full-time employees living near a major metropolitan area in the Midwest and had preschool- and school-aged children. The parent training course sought to modify risk and protective factors for substance abuse by improving parents' interactional and parenting skills, increasing support networks to address both parenting stress and conflicts between work and family roles, and expanding parents' knowledge of and encouraging the adoption of healthy attitudes and behaviors toward substance abuse. Measurements at baseline, posttreatment, and 9-, 18-, and 30-month followup evaluations focused on changes in child behavior problems and parental stress, interactional skills, and knowledge of child development. Program participation was described as either high program exposure (80 percent participation or greater) or low program exposure (less than 80 percent participation).

Findings:

1. Parents with high program exposure rated child behavior problems "decreased" and positive behavior and parenting practices and knowledge "increased." These improvements were maintained throughout the 18-month followup period. Those with low program exposure reported no improvement in child behavior.
2. Parents with high program exposure reported reductions in stress and depression throughout the 9-month followup period. Parents with low program exposure did not report these reductions.
3. Parents with high program exposure rated the impact of child problem behavior and prosocial behavior more positively than did low-exposure parents.
4. Program attendance was greater among parents who reported higher preprogram levels of social isolation and child behavior problems.

■ **Myers et al. (1990)**

Myers et al. (1990) conducted a quasi-experimental field test of a culturally appropriate cognitive-behavioral parenting skills building program. Two cohorts of inner-city African-American parents and their 1st- and 2nd-grade children participated in the program (65 treatment and 34 control dyads per cohort). The 15-session model program incorporated a range of historical and contemporary sociocultural issues facing African-American families into the teaching of basic behavioral child management strategies and skills. The intervention included lectures, skills demonstrations, and parent role playing to teach parents how to describe and quantify child behaviors and to use behavior-specific praise; mild social disapproval; and ignoring, time out, and special incentives as behavioral consequences for respectful and disrespectful child behaviors. Evaluations at baseline, postintervention, and for Cohort 1 at 1-year followup focused on the quality of the parent-child relationship, parenting practices, and child behavior problems and social competencies.

Findings:

1. Improvements for Cohort 1 included reduction in subtle forms of parental rejection, increased reports of improved parent-child and family relationships, and reduced withdrawal and hyperactivity (in boys) and sexual issues (in girls).
2. Followup at 1 year indicated maintenance of reductions in parental rejection, although there was a regressive trend toward using earlier and more coercive parenting practices.
3. Reductions in child behavior problems were maintained, and there were additional significant increases in the communicativeness of boys.
4. Improvements for Cohort 2 included reductions in both subtle and hostile-aggressive forms of parental rejection, decreases in the use of corporal punishment, increases in verbal acknowledgment or praise, reductions in delinquent behaviors (e.g., lying, stealing) in both boys and girls, and increases in social competency for girls.

■ **Guerney (1977)**

Guerney (1977) evaluated the effectiveness of a skills training program designed to improve psychological helping skills for foster parents of children aged 5 to 12 years. Approximately 75 percent of the foster children were White (the ethnic composition of the rest of the children was not described); about 10 percent were considered emotionally disturbed or mildly retarded. The families came from small towns, rural settings, and from a large metropolitan area. In this nonexperimental-design study with nonrandom assignment, 57 foster parents who were willing but unable to participate in the program were compared with 75 foster parents who participated in a skills training program 2 hours weekly for 10 weeks. Parental acceptance of and sensitivity to children, and desirable and undesirable verbal communication skills were measured at baseline and posttreatment.

Findings:

Foster parents in the treatment group (but not the comparison group) showed posttest improvements as follows:

1. Increase in attitudes of acceptance toward the foster children in their care.
2. Increase in the acquisition of parenting skills defined as desirable.
3. Decrease in parenting responses defined as undesirable.

■ **Guerney and Wolfgang (1981)**

In a nonexperimental study, Guerney and Wolfgang (1981) evaluated a skills training program for foster parents that focused on the development of skills for child management, empathy, relationship development, and understanding of children's needs and development. The 10 program sessions of the Foster Parent Skills Training program used demonstrations and role playing and other types of practice as the

predominant tools. Participation in the program was by self-selection at some agencies and by foster agency staff at other agencies, based on their determination of foster parents who most needed or were most likely to attend the programs. Control groups included persons who had agreed to participate but for practical reasons could not do so. The number of parents participating in the study was not specified, but they were referred by several foster agencies. In this multiphase study, evaluation was by direct interviewing and questionnaire. Baseline and posttraining evaluations were conducted at all sites (number not provided). Some sites included a comparison group.

Findings:

The program consistently resulted in the following:

1. Increased parental accepting attitudes toward children.
2. Increased parental ability to provide responses to children in hypothetical situations that were consistent with the skills taught and the goals of promoting child and parent-child relationship development.
3. Increased parental ability to reduce the use of parental responses considered unconstructive or destructive in their impact on children. These gains were maintained at 9-month followup.

■ **Thompson et al. (1993)**

Thompson et al. (1993) evaluated the effectiveness of a parenting program developed to teach middle and lower income parents child management skills to decrease their children's developmental, learning, and behavioral problems. In this nonexperimental-design study, 34 parents participated in eight weekly 2-hour sessions that included lectures, discussion, role playing, modeling, assignments, and videotapes. The baseline, posttreatment, and 3-month followup measures focused on child problem behaviors, parental attitudes, and parental problem-solving confidence skills.

Findings:

1. Improvement was noted in the primary measures, including a decrease in the number and frequency of child behavior problems and an increase in parental problem-solving confidence and personal control.
2. Improvements were maintained at 3-month followup.
3. No significant differences over time were noted between middle and lower income parents in reported changes.

■ **Knapp and Deluty (1989)**

In an experimental study by Knapp and Deluty (1989), one of two 8-week behavioral parent training programs was provided to each of 40 mothers who responded

to announcements of a behavior management program. Most of the mothers were White; 22 were of middle socioeconomic status, and 18 were of low socioeconomic status. Approximately half of the mothers were taught parenting techniques through the use of modeling and role playing, and the others were taught through readings, brief review testing, and discussions. Baseline evaluations included scored observations of parent-child interactions that focused on negative child behavior (noncompliance and inappropriate behavior) and positive parent behavior (good commands, attention, praise, and ignoring). Evaluations also included tests that focused on the mothers' perceptions of their children's behavior, adaptability, acceptability, demandingness, mood, distractibility, and hyperactivity as well as on children's perceptions of changes in their mothers' behavior after training. The evaluations were conducted at baseline, postintervention, and 2 months postintervention.

Findings:

1. After training, significant decreases in behavior problems from baseline levels were reported by mothers of middle, but not lower, socioeconomic status.
2. Although the initial gains were minimal, the role-playing mothers of lower socioeconomic status reported maintenance of gains at the 2-month followup, whereas those of the same status in the reading and discussion group did not.
3. During structured observation, mothers of lower socioeconomic status in the modeling and role-playing group more often used the skills they had been taught than did mothers of lower socioeconomic status in the reading and discussion group.

■ **Wolchik et al. (1993)**

Wolchik et al. (1993) evaluated the effectiveness of a parent-based intervention designed to improve psychological adjustment in children of divorced mothers. In this experimental-design study, 70 divorced mothers were randomly assigned to a 12-session parenting program (10 weekly group sessions and 2 individual sessions) or to a waiting list. The intervention was designed to promote acquisition and/or enhancement of parenting skills that would improve mother-child relationships and discipline methods, minimize divorce-related trauma, increase contact with fathers, and encourage support from other adults. Baseline and 12-week posttreatment evaluations were based on children's and mothers' reports on parent-child relationships and children's reports on discipline and psychological adjustment.

Findings:

1. At posttest, program participants reported higher quality mother-child relationships and better discipline, fewer divorce-related traumas, and better mental health outcomes than did control subjects.

2. Mothers reported more positive effects than did children; families with poorest initial levels of functioning also reported greater program effects.
3. Improvements in mother-child relationships partially mediated the effects of the program on the children's mental health.

Parent Training Plus Family Skills Training

■ **Catalano et al. (1995)**

Catalano et al. (1995) compared the effectiveness of methadone maintenance treatment alone (control group) and that of a methadone maintenance treatment with a theory-based parent training component (intervention group) designed to increase relapse prevention skills, improve parenting skills and child skills and behavior, and reduce parent and child drug use. In this experimental-design study, 144 parents in methadone maintenance treatment for opiate addiction (most of whom were White females) were randomly assigned to one of the two conditions (with and without parent training). The parent training intervention was delivered in 33 parent training sessions conducted over 16 weeks; 12 of the sessions included the children. Training was reinforced through 9 months of home-based case management. Baseline and posttreatment measures focused on refusal skills, relapse coping skills, effects on family functioning, and parent drug use.

Findings:

1. Parents in the intervention group displayed higher skill levels than did control parents during role playing with respect to drug refusal and relapse coping skills. However, they were no more likely to believe that they would remain heroin-free than were control parents.
2. Families in the intervention group held more family meetings to discuss family leisure activities than did families in the control group, but they did not have more family discussions on drug issues or family problems.
3. At posttreatment, intervention subjects used opiates less frequently than did control subjects, but no differences were found between groups on the prevalence of alcohol use and the use of drugs other than heroin.
4. At posttreatment, no differences were found between groups in family bonding, family conflict, or domestic conflict.

■ **Spoth et al. (1995), Kosterman et al. (1996, 1997)**

Spoth and colleagues (1995) conducted a series of studies as part of a large-scale family-focused preventive intervention project (Project Family) to assess the efficacy of the Preparing for the Drug (Free) Years program (PDFY) and the Iowa Strengthening Families program. Spoth et al. reported on parenting outcomes of PDFY, a theory-based family skills training intervention designed to prevent adolescent substance abuse and other problem behaviors. The 209 rural families participating in

an initial outcome study were randomly assigned to a group receiving PDFY or to a waiting-list control condition. Parents in the intervention group attended a five-session multimedia skills training program, including one session on peer resistance skills that was also attended by their children. This experimental-design study included self-reported and observational measures at baseline and posttreatment regarding parenting skills specifically targeted by the intervention (communication and management specific to substance use, helping adolescents express feelings, and family involvement) as well as general child management skills. Kosterman et al. (1996, 1997) examined outcomes specific to each of the five PDFY sessions.

Findings:

1. At posttest, significant differences were noted between mothers and fathers in the intervention group and those in the control group for parenting behaviors directly targeted by the intervention and for general child management skills not directly targeted by this intervention.
2. In addition to the intervention, individual differences in readiness for parenting change, parenting self-efficacy, and parental attendance predicted changes in parenting behaviors targeted by the intervention.
3. More parents in the intervention group than control parents provided reinforcement to their children for prosocial behavior, monitored their children's whereabouts, and reported increased family involvement with their children, both in discussing family issues and in pleasurable activities.
4. Differential attendance at each of the sessions was noted among parents in the intervention group. Those who attended specific sessions experienced more improvements in behaviors targeted by these sessions than did the intervention group as a whole.
5. More mothers and fathers in the intervention group than in the control group demonstrated improved relationship quality and more proactive communication. Mothers were also observed to have less negative interactions with their children.

■ **Spoth and Redmond (1996), Spoth, Redmond, et al. (1997)**

In an additional analysis of the PDFY program, Spoth and Redmond (1996) and Spoth, Redmond, et al. (1997) examined three interrelated models of theory-based mechanisms of change in selected outcomes, incorporating intervention parameters such as session attendance level.

Findings:

1. Maternal level of intervention attendance had direct effects on child management and mother-child affective quality at posttest. Father's level of intervention attendance had direct effects on child management.

2. Mothers' and fathers' parent-child affective quality had direct effects on child management behaviors. Additionally, there was evidence of a reciprocal effect of child management behaviors on parent-child affective quality.
3. Attachment to parents and peer prosocial norms had direct effects on young adolescents' alcohol refusal skills. Indirect effects of parent intervention attendance level on young adolescents' alcohol refusal skills were also in evidence.
4. Family member attendance had a direct effect on young adolescents' attachment with parents; collectively, attachment with parents and peers' prosocial norms had a similar effect on behavioral tendency toward alcohol abstinence at posttest, as did the pretest level of behavioral tendency toward alcohol abstinence.
5. The quality of young adolescents' affectional relationship with parents and prosocial peer affiliation had a significant effect on these young adolescents' sense of mastery and self-esteem.

■ **Spoth (in press); Spoth, Redmond, and Shin (in press); Spoth, Redmond, Shin, and Huck (in press); Spoth, Reyes, and Redmond (1997)**

Spoth (in press); Spoth, Redmond, and Shin (in press); Spoth, Redmond, Shin, and Huck (in press); and Spoth, Reyes, and Redmond (1997) evaluated the effectiveness of a family competency training program designed to enhance protective parent-child interactions and to reduce children's risk for early substance use initiation. In this experimental-design replication of an earlier study by Spoth and colleagues, 667 rural families with 6th grade students from 33 schools were assigned to one of two family-focused prevention intervention conditions or to a minimal-contact control group. The interventions examined were the five-session PDFY program and the seven-session Iowa Strengthening Families program (ISFP).

Findings:

1. Mothers in the intervention group scored significantly higher than control-group mothers on all three parenting outcome measures examined (intervention-targeted parenting behaviors, general child management, and parent-child affective quality).
2. Fathers in the intervention group scored significantly higher than control-group fathers on the measures of intervention-targeted parenting behaviors and general child management.
3. Both PDFY and ISFP had direct effects on intervention-targeted parenting behaviors, which in turn directly impacted parent-child affective quality and effective child management. PDFY and ISFP also showed significant indirect effects on these two parenting outcomes.

4. Family intervention attendance showed a direct effect on parent-child affective quality, which in turn served to reduce young adolescent oppositional behaviors. Through the effect of improved parent-child affective quality, young adolescent's sense of mastery also served to reduce oppositional behaviors.

Parent Training With Separate Child Training Plus Family Skills Training

■ **Kumpfer and DeMarsh (1987)**

Kumpfer and DeMarsh (1987) compared the effectiveness of three parent-child-focused family-based prevention conditions for reducing the substance abuse risk status of 60 children living with a substance-abusing parent(s). The three conditions consisted of a 14-week parent training program alone, parent training plus a 14-session children's skills training program, and parent and child skills training plus a 14-week family skills training program. In this quasi-experimental dismantling study with random assignment, baseline and posttreatment measurements focused on child problem behaviors, child-parent interactions, and parental behaviors and attitudes.

Findings:

1. All three conditions had significant positive effects, primarily matching each intervention's objectives.
2. The combining of two and three programs had a cumulative effect. Thus, the primary impact of parent training was improvement of the child's targeted negative behaviors, that of children's skills training was an increase in child prosocial behaviors, and that of parent training plus children's skills training was more positive social interactions. The cumulative impact of two or more programs was greater than the impact produced by any program alone.
3. The combination of parents' and children's skills training plus family skills training resulted in the above-mentioned effects, as well as a decrease in parents' drug use in the presence of their children; a decrease in parental depression; an increase in parenting enjoyment; and an increase in family cohesion, adaptability, expressiveness, communication, social networking, and participation in family activities.
4. The combination of parent training, children's skills training, and family skills training was more effective than were the other two conditions with regard to improving the mental status of parents and children, decreasing children's risk behaviors, improving the family environment and parent-child relationship, improving the children's relationships with peers, and enhancing school achievement.

5. Only the combined parent, children's skills, and family skills training condition produced significant decreases in substance use by youth and parental improvements in the parent-child relationship.

■ **Kumpfer et al. (1991)**

Kumpfer et al. (1991) evaluated the effectiveness of a parent-child-focused family skills training program for reducing the substance abuse risk status of children in 49 African-American families in rural Alabama living with a substance-abusing parent(s). Most of the children were between the ages of 6 and 9 years. The parents were mostly single mothers living in poverty. The nonexperimental study included comparing the effectiveness of the program for two clusters of the intervention group: high- and low-level substance users. The 14-week family skills training program was comprised of behavioral parent training sessions, separate children's training sessions, and joint parent and child training sessions. The interventions were designed to decrease children's problem behaviors, improve children's emotional status and prosocial skills, and improve parenting skills and family environment and function. Baseline and posttreatment measurements focused on child problem behaviors, child-parent interactions, and parental behaviors.

Findings:

After the intervention, the following were observed:

1. Parents with high-level substance use reported a decrease in family conflict and drug use, both in and outside of the home.
2. Parents with low-level substance use reported an increase in family organization, and their children showed a decrease in obsessive-compulsive behavior.
3. All of the children experienced improvements in measures of externalizing, aggression, delinquency, and hyperactivity.

■ **Aktan et al. (1996)**

Aktan et al. (1996) evaluated the effectiveness of the Safe Haven program, a family skills training program for inner-city African-American families intended to reduce risk factors for substance use in families in which one parent is known to abuse substances. The program consists of concomitant parent training and children's skills training, followed by family skills training classes. This repeated-measures, quasi-experimental study with pre- and posttest design involved 88 parents and 88 children (aged 6 to 12 years) participating in 12 weekly structured sessions and a nonequivalent comparison group. Baseline and posttreatment parent and child interviews focused on parenting efficacy and bonding with children, children's negative and positive behaviors and school performance, children's school bonding and association with positive peers, family cohesion, family communication, family expressiveness, and family organization. Analyses included a comparison of treatment

effects on a group of parents who were heavy users and light users of alcohol, tobacco, and illicit drugs.

Findings:

1. The program had some positive effects on all parents, children, and families, but more reductions in risk factors and increases in protective factors were noted in children whose parents were heavy users than in those whose parents were light users of substances.
2. Parents in both the heavy-use and light-use groups reported a drop in illicit drug use in the family and a reduction in their own drug use.
3. The overall sample of parents and the heavy-use group reported decreases in depression.
4. The overall sample of parents and the heavy-use group reported significant improvements in their perceived efficacy as parents.
5. The heavy-use group reported an increase in the amount of time spent with their children.
6. Children demonstrated reduced aggression and hyperactivity and increased school bonding and time spent on homework.
7. The primary treatment effect on the family environment was improved family cohesion.

Practice Evidence Reviewed for Approach 1, Cluster 1

The following are abstracts of practice case studies that constitute the practice evidence for parent and family skills training as a selective and/or universal preventive measure. This practice evidence is organized according to child and parent involvement: parent training without child involvement, parent training with separate child training, and family skills training.

Parent Training Without Child Involvement

■ Kansas Family Initiative

The Kansas Family Initiative was a statewide prevention effort designed to help parents learn about substance abuse risk factors, develop a family position on alcohol and illicit drugs, learn techniques for alcohol and other drug refusal, manage family conflicts, and strengthen family bonds. Based on the Preparing for the Drug (Free) Years curriculum, the five-session program was delivered to parents by at least 500 volunteers who were certified through a 3-day Training of Trainers (TOT) workshop. Reports were developed regarding the impact of the training on parents and the trainers. For parents, baseline, posttreatment, and 3-week followup measures focused on curriculum content, attitudes, program usefulness, home implementa-

tion, and skills learned. For trainers, measures focused on knowledge and skills acquired and level of confidence in the material being presented.

Findings for parents:

1. Positive attitudes about the program and its usefulness were reported by 94 percent of parents at posttest and 91 percent at followup.
2. The ability to implement the skills learned in training at home was reported by 90 percent of parents at posttest and 84 percent at followup.
3. Gains in knowledge and skills based on chapter 3 of the curriculum (How to Say No) were reported by 22 percent of participants, and 16 percent reported such gains based on chapter 1 (Risk Factors).

Findings for trainers:

1. Positive attitudes about the program and its usefulness were reported by 96 percent of trainers at posttest and 95 percent at followup.
2. Confidence in their ability to present the curriculum was reported by 84 percent of trainers at posttest and 86 percent at followup.

■ Parenting for Prevention

The Parenting for Prevention program of the King County, Washington, Department of Alcohol and Substance Abuse Services is a multiagency parenting education and training program designed to reduce risks associated with compromising the health and protection of children, assist parents with child-rearing challenges through effective parenting, and promote their bonding with families and the community. This parent training curriculum focuses on positive discipline, effective family communication, child growth and development, pride in cultural heritage, development of healthy self-esteem in children, and substance abuse awareness. The number of sessions ranged from 10 to 13, each generally lasting 2 hours or longer. A total of 214 participants attended two or more classes, and 180 completed the program. A one-group pretest and posttest nonexperimental design was employed. Evaluation measures focused on project implementation, participant characteristics, participant sense of competence, family-parent-child interactions, child competence, and program evaluation.

Findings:

1. All program participants exhibited improvements in general competence, child behavior management, anger management, and problem-solving skills.
2. Program participants exhibited moderate improvements in the use of positive and negative discipline methods and positive and negative communication strategies and in family activities.
3. In participants' ratings of their children's behavior and social competence, improvements were observed in general competence, anger management, and

problem-solving skills, and orientation toward drugs, gangs, and violence was reduced.

4. Ninety-eight percent of participants reported that they would recommend the program to others. Most described the activities and components of the intervention as good or very good, and many participants who had reported noninvolvement in community activities at pretest reported involvement at posttest measurement.

■ **Communication and Parenting Skills**

The Communication and Parenting Skills (CAPS) program was a nine-session skills-oriented course designed to teach parental modeling of positive attitudes and behaviors and effective communication (Klein & Swisher, 1983). The program included class discussions, assigned reading, skills training, modeling of desired responses, homework, reinforcement, and values clarification. The quasi-experimental, posttest-only design included an intervention group and a waiting-list comparison group, to which assignments were made by availability. Posttest measures focused on parental sensitivity to and acceptance of children and family environment. Data were collected only once, after the intervention group completed the program and before the comparison group received the program.

Findings:

1. Participants in the intervention group expressed constructive responses to their children more often than did parents in the comparison group.
2. Participants in the intervention group expressed destructive responses less often than did those in the comparison group.
3. Parents in the intervention group reported increased respect for their children as individuals than did parents in the comparison group.

Parent Training With Separate Child Training

■ **Creating Lasting Impressions**

The Creating Lasting Impressions program of the Council on Prevention and Education: Substances involved the engagement of church communities in rural, suburban, and urban settings. The program empowered these communities to identify, recruit, and retain 12- to 14-year-old youth at high risk and their parents or guardians for participation in prevention activities. The client-level component involved a 20- to 25-week curriculum of training in substance abuse issues, family management and enhancement, communication skills for parents and youth, and substance abuse issues for youth. It included 1 year of early intervention, referral, and followup

services for both parents and youth. The program highlighted wellness, health promotion, and resiliency factors.

Church community engagement findings:

Church advocate teams were frequently, but not always, able to recruit more than the required number of families in targeted communities and were able to increase those families' level of empowerment and participation in prevention activities.

Parent resiliency findings:

There were short-term and sustained gains in parents' levels of substance abuse knowledge and beliefs, involvement with youths in setting rules concerning substance use, and reduction of alcohol use in the African-American church community participating in the project. There were sustained gains in parents' use of community services for family or personal problems, in actions taken, and in the perceived helpfulness of community services.

Youth resiliency findings:

1. More youth in the program group than in the comparison group used community services when problems arose.
2. Short-term and sustained (but weak) increases were seen in mother-child bonding.
3. Greater increases were seen in level of communication and bonding with fathers and siblings among youth in the program group than in the comparison group, although the increases were small.

Youth substance abuse findings:

1. Short-term and/or sustained delays were seen in the onset of substance use by youth within program families where one or more of the following occurred: Parents increased their substance abuse knowledge, increased the likelihood of punishing youth for substance use, or decreased family conflict.
2. Short-term and/or sustained decreases were seen in the frequency of alcohol use by youth within program families in which one or more other improvements such as those listed above were reported.
3. Short-term and/or sustained decreases in frequency of drug use were also seen in program families showing one or more other improvements.

Family Skills Training

■ Families in Focus

The Families in Focus program of the Cottage Program International is an intensive family skills training program involving in-home activities designed to build family

cohesion, adaptability, and communication as a way to prevent substance abuse. Professionals and/or trained volunteers provide up to 36 hours of in-home or small-group workshops in family skills training. All families complete the initial phase of the program—establishing and charting a family profile—in nine group meetings held every 2 weeks or during in-home visits made usually once weekly for 14 weeks. After assessment, families are directed to activities in the Families in Focus manual that encourage improved family functioning in seven areas: fun, decision, pride, values, feelings, communication, and confidence. Facilitator provide information and referrals if needed and suggest program-related social events and incentives to acquaint the families with community recreation activities. In this study, pretreatment and posttreatment evaluations of 119 families focused on family environment issues, such as family cohesion and adaptability, and on individual protective factors related to family, peers, and personal behavior.

Findings:

1. At posttreatment, most respondents (67 percent) reported positive changes in their perceptions of family cohesion, whereas 31 percent perceived less family cohesion.
2. Respondents perceived positive changes in family adaptability.
3. The area in which the children showed greatest positive change was their perception of supportiveness in the home environment.

■ Families and Schools Together

The Families and Schools Together (FAST) program is a family- and school-based prevention program that emphasizes enhancement of family functioning and development of protective factors, prevention of school failure and substance abuse, and reduction in family stress. Families participate in eight weekly 1.5-hour structured activities that promote cooperation and collaboration through assembling family flags, learning songs, hosting meals, reviewing the day, and playing charades based on feelings. This is followed by 2 years of similar activities on a monthly basis. At last report, the program had been implemented in at least 22 States. The effectiveness of FAST is measured in terms of reduced child problem behaviors, increased family adaptability and cohesion, decreased social insularity, and increased parental involvement in school issues and activities. Seventy-five percent of FAST participants were boys, 85 percent of whom were between the ages of 6 and 9 years. About half were African American, and about half were White. Seventy-five percent of the families were headed by a single mother, and the families had an average of three children. Most of the families were impoverished and stressed. No formal evaluation

process was incorporated in the prevention case study. However, the program's information system suggests the following findings:

1. Children of families participating in the FAST program showed improvements in classroom and home behaviors and in self-esteem.
2. Parents showed improvements in community and school involvement and reduced isolation.
3. After training, parents reported improved self-esteem and an increased ability to assist their children.
4. Parents reported increased community involvement, such as obtaining a full- or part-time job, obtaining referral to counseling and addiction treatment, and participating in community groups and community center activities.

Research Evidence Reviewed for Approach 1, Cluster 2

The research evidence for parent and family skills training as indicated preventive measures is organized according to the level of child and parent involvement: parent training without child involvement, parent training with separate child training, family skills training, and parent training plus family skills training.

Parent Training Without Child Involvement

- **Arnold et al. (1975)**

Arnold et al. (1975) reanalyzed data that had been gathered during an intervention designed to train parents of low socioeconomic status in social learning techniques of child management for their predelinquent children. In this nonexperimental study with a time-series design, they examined data on 55 siblings (aged 2 to 16 years) in 27 families to determine whether the parent training later resulted in reductions in the rates of deviant behavior for the target children's siblings. Fourteen noxious behaviors, such as noncompliance, yelling, and destruction, were measured during 6 to 10 baseline evaluations, weekly evaluations during the intervention, and 6 monthly followup evaluations.

Findings:

1. At posttest, the siblings demonstrated an average reduction in deviant behavior of 36 percent from baseline level.
2. At posttest, 49 percent of the siblings showed a reduction in deviant behavior of at least 30 percent.
3. Overall, these effects were maintained throughout the 6-month followup period.

■ **Dubey et al. (1983)**

Dubey et al. (1983) compared the effectiveness of two parent training treatment conditions (a behavior modification group and a communications group) and a delayed-treatment control group in reducing child hyperactivity, problem severity, and daily problem occurrence. In this quasi-experimental study, parents of 44 hyperactive children (primarily boys between 6 and 10 years of age) were assigned to one of two 9-week, 2-hour treatment conditions or a 10-week waiting-list condition. Parents were assigned so that groups were matched according to the child's age and score on a hyperactivity scale. The pretreatment, posttreatment, and 9-month followup measures focused on the extent and severity of hyperactivity, problem behaviors, parental attitudes, child management, and parental expectations.

Findings:

1. Parents in the treatment groups reported greater reductions in their child's hyperactivity, global severity of problems, and daily occurrences of problems than did parents in the control group. There were no intergroup rating differences for these factors.
2. Compared with their counterparts in the communications group, parents in the behavior modification group reported more global improvement in problem behaviors, greater willingness to recommend the course to a friend with children having similar problems, a stronger belief that the course was applicable to their problems, and more willingness to remain in the program.
3. Most treatment effects were maintained throughout the 9-month followup period.

■ **Anastopoulos et al. (1993)**

Anastopoulos et al. (1993) evaluated changes in parent functioning resulting from parental participation in a behavioral parent training program designed for school-aged children with attention deficit hyperactivity disorder. The study subjects were 34 children and their mothers. The 25 boys and 9 girls, aged 6 to 11 years, were predominantly White and middle class. The subjects were nonrandomly assigned to either parent training or a 2-month waiting-list control group. Fathers were encouraged and mothers were required to attend all sessions. The parent training consisted of a nine-session program, included use of a treatment manual and parent counseling, and was completed by most over a 2-month period. The program included an overview of information about the disorder, general principles of behavior management, positive reinforcement skills, and positive attending and ignoring skills, with instruction in reward-oriented home token/point systems and punishment. Baseline evaluations included child behavior ratings by parents and teachers, parent self-rating,

parent and child interviews, observational assessment, psychological testing, and reviews of school and medical records. For the intervention group, measures were collected within 1 week after treatment and again approximately 2 months later as a followup. The waiting-list control group measures were collected at times equivalent to posttreatment and 2 months posttreatment.

Findings:

1. Relative to the waiting-list control group, subjects who completed the nine-session program showed pretreatment gains in both child and parent functioning.
2. These gains were maintained during the 2-month followup.
3. In particular, parenting stress was reduced and parenting self-esteem was increased, changes that accompanied parent-reported improvements in the overall severity of their children's attention deficit hyperactivity disorder.

■ **Patterson (1974, 1975)**

Patterson (1974, 1975) examined the effectiveness of a parent training procedure designed to alter the behavior of aggressive children. This nonexperimental study made multiple evaluations of 27 families who were consecutively referred by community agencies because at least one boy in each family had exhibited extreme aggressive behavior. The age range of the boys was 5 through 13 years, with a mean of 8.7 years. Most were White. The families were observed to evaluate the deviant and prosocial behaviors of their children and parent-mediated consequences of these behaviors. Parents were required to study a text on social learning-based child management techniques and were taught to identify and track rates of deviant and prosocial behavior. Each subject received an average of 32 hours of therapist time and an average of 28 hours of classroom program time. Each family received 6 to 10 home-based evaluations, including at baseline, after parents completed reading the programmed text, after 4 and 8 weeks of training, and at termination. Followup evaluations were conducted monthly for 6 months and then bimonthly during the next 6 months (for a total of nine evaluations at months 1 through 6, 8, 10, and 12). These evaluations included observations of family interactions in the family's home and daily reports by parents on children's problem behaviors.

Findings:

1. A modest reduction was observed in targeted child deviant behavior immediately after the parents read the textbook. A further reduction was observed at the 4- and 8-week evaluations, and this effect was generally maintained over the treatment period.

2. At termination there was, on average, a 60-percent reduction from baseline levels in the parent-reported and observed behaviors that had been identified by parents during the training and for which the parents had received individualized training.
3. At termination, 74 percent of the children showed reductions of 30 percent or more from baseline in deviant behavior.
4. Both observational and parent-reported followup evaluations demonstrated that deviant behavior remained at or below termination levels throughout the 12-month followup period.

■ **Webster-Stratton (1984)**

In an experimental study, Webster-Stratton (1984) evaluated the effectiveness of providing mothers with child management skills to enhance their parenting and reduce their children's noncompliant behavior (e.g., refusal to follow requests, tantrums, and aggression). The mean age of the 25 boys and 10 girls was approximately 5 years. Thirty-five mothers were randomly assigned to one of two treatment groups (9 weeks of individual therapy or 9 weeks of therapist-led group therapy based on a standardized videotaped modeling program) or to a waiting-list comparison group. Following the initial treatment wave, subjects in the waiting list control group were randomly assigned to one of the treatment conditions. Measures related to changes in child problem behaviors and to parent behaviors and attitudes were obtained at three points: pretreatment, posttreatment, and 1-year followup.

Posttreatment findings:

1. Both treatment groups demonstrated less child noncompliance, fewer and less severe child behavior problems, and more child prosocial behaviors than did the waiting-list comparison group. Both treatment groups also showed improved maternal behavior and resorting to less spanking.
2. Outcomes did not differ between the two treatment groups.

One-year followup findings:

1. Child noncompliance and deviant behaviors had declined from posttreatment measures.
2. The treatment groups did not differ on any maternal or child behavior measures or on parental attitudinal measures.
3. Posttreatment maternal behavior and parental attitudinal improvements were maintained.

■ **Webster-Stratton (1990a)**

In a similar study, Webster-Stratton (1990a) evaluated the effectiveness of a 10-week self-help videotaped parent training program consisting of two treatment conditions, with and without therapist consultation. The program was designed to provide par-

ents with skills to reduce the noncompliance of their children with conduct disorder, enhance maternal parenting skills, and improve parent-child communication. The mean age of the 34 boys and 9 girls studied was about 5.1 years. In this experimental study, the parents were randomly assigned either to one of two treatment conditions, individually self-administered videotaped modeling (IVM) treatment or IVM treatment plus therapist consultation (IVMC), or to a waiting-list control group. Pretreatment and 1-month posttreatment measures focused on improvement in child problem and prosocial behaviors, parent-child relationships, parent behaviors and attitudes, and parent satisfaction with treatment.

Findings:

1. Mothers in the IVM and IVMC groups reported fewer child problem behaviors, less spanking, and less parental stress than did mothers in the control group. Mothers in both treatment groups also reported higher consumer satisfaction.
2. Mothers in the IVM and IVMC groups showed more positive affect toward their children than did mothers in the control group.
3. As measured by parent self-reporting and maternal observations, the differences between the IVM and IVMC groups were not significant.
4. As measured in home visits, children in the IVM group exhibited about the same number of occurrences of deviant behaviors as children in the control group.
5. As measured in home visits, children in the IVMC group displayed fewer cases of deviant behavior than did children in the IVM or control groups.
6. As measured in home visits, mothers in the IVMC group gave more praise to their children than did control mothers and gave fewer "no-opportunity" commands than did mothers in the IVM group.

■ **Webster-Stratton et al. (1988, 1989), Webster-Stratton (1990b)**

In an experimental study by Webster-Stratton et al. (1988, 1989) and Webster-Stratton (1990b), three treatment methods were evaluated against a waiting-list control condition for their effectiveness for 114 children having conduct problems and for their parents. The 79 boys and 35 girls had an average age of 4.5 years. The 10 to 12 weekly treatments consisted of individually administered, videotaped modeling sessions; therapist-led group discussion and videotaped modeling; or therapist-led group discussion. Children and their parents were randomly assigned to one of these conditions. Pretreatment, posttreatment, 1-year, and 3-year followup measures focused on reduction of problem behaviors among children with conduct problems and on improvement of parents' behaviors and perceptions.

Posttreatment findings:

1. In general, and compared with the control group, all treatment groups demonstrated improvements, such as fewer child behavior problems, more child prosocial behaviors, and less spanking by parents.
2. There were few differences among treatment groups on most outcome measures, although the differences that were found consistently favored the group discussion videotaped modeling treatment.
3. Individually administered videotaped modeling was the most cost-effective treatment.

One-year followup findings:

1. All significant posttreatment improvements were maintained 1 year later.
2. Approximately two-thirds of the participants demonstrated clinically significant improvements.
3. Few differences were found among the three treatment conditions. One of these differences was that group discussion plus videotaped modeling was superior to the treatments without both components.

Three-year followup findings:

1. Parents reported overall improvements over baseline in children's behavior.
2. Only treatment that combined videotaped modeling with therapist-led group discussion yielded stable improvements.

■ **Webster-Stratton (1994)**

In a study using an experimental design, Webster-Stratton (1994) randomly assigned 78 families with a child diagnosed as having oppositional defiant disorder or conduct disorder to one of two family skills training conditions. Most of the identified problem children were boys, and their mean age was 5 years. All families were exposed to a 12- to 13-week basic parenting skills training program of videotaped and group discussion (GDVM) designed to model parenting skills. Thirty-eight families also received GDVM plus a broader-based, 14-session videotape and group discussion component (ADVANCE), which was designed to train parents to cope with interpersonal distress through improved communication, problem solving, and self-control skills. Baseline, post-GDVM, and post-ADVANCE evaluations focused on changes in children's problem solving, children's problem behavior, parent-child communication, parent distress, and parent perception of child adjustment.

Findings:

1. Families in both conditions experienced significant improvements at short-term follow-up.
2. Families who received the combined programs showed modestly improved outcomes, compared with families who received only GDVM. Those who received

the combined programs showed significant improvements in parents' problem-solving, communication, and collaboration skills, as well as in children's problem solving.

Parent Training With Separate Child Training

Horn et al. (1991), Ialongo et al. (1993)

In a study using an experimental design, Horn et al. (1991) evaluated the effectiveness of randomly assigned high-dose methylphenidate, low-dose methylphenidate, and medication placebo provided either alone or in combination with a 12-week behavioral parent training and child cognitive-behavioral self-control instruction program. Participants in the study included 96 children with attention deficit hyperactivity disorder and their parents. Most children were White, and they ranged in age from 7 to 11 years. The pretreatment, posttreatment, and 9-month followup measures (Ialongo et al., 1993) focused on changes in child problem behavior, academic achievement, and self-concept.

Posttreatment findings:

1. Methylphenidate was effective in ameliorating the primary and many of the secondary features of attention deficit hyperactivity disorder.
2. The combination of parent training and child self-control instruction was no more effective than was high- or low-dose methylphenidate alone.

Nine-month followup findings:

Nine months after the withdrawal of methylphenidate and termination of the behavioral interventions, all treatment groups experienced erosion in pretreatment-to-posttreatment gains in teacher-rated inattention, hyperactivity, and impulsivity; direct observations of off-task behavior; and performance on laboratory measures of attention and impulsivity.

Tremblay et al. (1991, 1995)

Tremblay et al. (1991, 1995) evaluated the effects of parent and child training on the antisocial behavior of boys identified as being disruptive in kindergarten. In this experimental-design study, 172 boys were randomly assigned either to an intervention group or to one of two nonintervention groups (an observation group or a control group). The study was designed to evaluate the effectiveness of parent and child training on the reduction of disruptive behavior, notably child antisocial behavior. The parent training included provision of a reading program, monitoring of children's behavior, giving of positive reinforcement for prosocial behavior, instruction in nonabusive punishment, management of family crises, and helping of parents to generalize what they learned. For boys, the focus was on teaching social skills,

the use of fantasy, and the critical use of television. The education strategies were conducted every other week over a 2-year period, with a maximum number of 46 sessions (the mean number of sessions over 2 years was 17). The target subjects were White, French-speaking Canadian boys from low socioeconomic backgrounds and considered to be disruptive in kindergarten. Evaluations were made from the boys' teachers, peers, and mothers at baseline and at years 1, 2, 3, and 6. At the final evaluation, the boys were typically 15 years of age. Parents and teachers completed a social behavior questionnaire, which included four scales: disruptive, anxious, inattentive, and prosocial. Peer assessments were of disruptive behavior, social withdrawal, and likableness. Self-reports included questions about fighting and stealing both inside and outside the home. The observation and control groups were combined for analysis when no differences were found between them.

Findings:

1. Three years after the intervention, fewer treated boys (23 percent) than untreated boys (43 percent) were in special classes or being held back. A larger proportion of the treated than of the untreated boys were in an age-appropriate regular classroom during the elementary school years, but this difference disappeared from age 13 onward.
2. At 3 and 6 years postintervention, analysis of the self-reports revealed that treated boys were less likely than untreated boys to report fighting outside the home or stealing at home.
3. At the end of the intervention, more mothers of boys who received the intervention than of those who did not receive it assessed them as being disruptive and inattentive. However, these differentiating perceptions faded over the course of the followup.

Dishion and Andrews (1995)

Using a quasi-experimental study design, Dishion and Andrews (1995) evaluated the effectiveness of various components of the Adolescent Transitions Program (ATP). This program was intended to provide a supportive, nonstigmatizing, preventive intervention for high-risk families in order to promote adaptation in the adolescent years, essentially by reducing maladaptive processes. A total of 119 families was randomly assigned to receive the parent-focused component, the teen-focused component, the parent- and teen-focused components together, or a self-directed change condition with materials only. An additional 39 families were recruited as quasi-experimental control subjects who received no intervention. Families in the study were primarily White and had adolescents with at least 4 of 10 areas of early adolescent risk. The parent-focused curriculum targeted parent-family management practices and communication skills. The teen-focused intervention targeted self-regulation and prosocial behavior within the context of parent and peer environ-

ments. Other components of ATP included peer consultants for both the parent- and the teen-focused components and family therapy sessions at three strategic points in the intervention process. Families received the intervention weekly for 12 weeks. The authors examined family interaction patterns and family conflict, youth behavior problems, and adolescent tobacco use at baseline, postintervention, and 1 year after the intervention.

Findings:

1. The parent- and teen-focused interventions resulted in immediate reductions in reported and observed family conflict.
2. At 1-year followup, however, the youth who had been assigned to only the teen-focused intervention experienced an increase in behavior problems compared with control youths.
3. The parent-focused intervention resulted in immediate improvements in adolescent behavior problems at school.
4. At 1-year followup, adolescents whose parents received the parent-focused intervention had reduced their use of tobacco.

Family Skills Training

Bank et al. (1991)

Bank et al. (1991) compared the effectiveness of a parent training intervention with services traditionally provided by the juvenile court and the community. In this experimental-design study, 55 families with boys (average age 14 years) who exhibited chronic delinquent behavior were randomly assigned to the treatment condition, which averaged 45 hours of professional contact, or to the control (traditional) condition, which averaged more than 50 hours of contact. Baseline, posttreatment, and 1-, 2-, and 3-year followup evaluations focused on problem behaviors of children, behaviors of family members, juvenile justice delinquency, and days spent incarcerated.

Findings:

1. During treatment, the rate of offenses declined for both groups, but the decline was greater for the subjects receiving treatment than for control subjects.
2. Both groups experienced an overall drop in offense rates after the onset of treatment; by the end of the followup period, both groups experienced similar decreases.
3. Treatment subjects spent a total of 1,287 fewer days in institutional confinement than did their control counterparts from beginning treatment through followup.

4. Parents reported reduced delinquent behavior among children in the treatment group.

Baum and Forehand (1981)

Baum and Forehand (1981) examined the long-term maintenance effect of a parent training program on mother-child interactions, parents' perceptions of child adjustment, and parent satisfaction. All children were noncompliant with parental requests, and many were aggressive, destructive, and exhibited negative verbal behavior. In this one-group, nonexperimental-design study, 44 parent-child pairs completed the original program, 36 were contacted at least 1 year after treatment, 34 completed questionnaires, and 20 were the subject of in-home observations. Children's ages at followup ranged from 4 to 13 years. Baseline, posttreatment, and followup evaluations, which were performed at least 1 year after treatment, focused on mother-child interactions, parents' attitudes, children's problem behaviors, and consumer satisfaction. Treatment length was not specified in the published report.

Findings:

1. Improvements in child behavior observed at posttreatment were maintained for up to 4.5 years.
2. The improvements in parents' perceptions of child adjustment that were observed immediately after treatment were maintained at followup.
3. Parents expressed high levels of satisfaction with several aspects of the treatment program, including favorable responses to the therapist and general satisfaction with the skills taught during treatment.

Forehand and Long (1988) and Long et al. (1994)

Forehand and Long (1988) and Long et al. (1994) conducted two followup evaluations of subjects who had participated in a series of parent training programs several years earlier (McMahon & Forehand, 1984). Both studies employed matched community comparison groups. The initial presenting problem for the target children was noncompliance with parental requests; secondary problems included aggression, property destruction, and negative verbal behavior. Children's ages at the time of participation ranged from 2 years, 4 months to 7 years, 10 months. In most cases, only the mother and child participated in the program. The intervention consisted of 8 to 10 clinic sessions in which the parent was taught to attend to and reward appropriate behavior and to ignore minor inappropriate behavior, to issue commands and to reinforce compliance, and to use time out for noncompliance. The intervention used didactic instruction, modeling, role play, and practicing of skills both in the clinic and at home.

The first followup study was conducted 4.5 to 10.5 years after the parent training (Forehand & Long, 1988). Of the 43 parents who had participated in the parent

training program at least 4.5 years earlier and whose child was now between 11 and 14 years of age, 21 agreed to participate in the followup study. A nonclinical comparison group consisted of 21 families who had not participated in parent training and whose child had never been in any type of therapy. Followup evaluations focused on problem behavior of children, parent-child disagreements, family communication and conflict behavior, children's self-perceived competence, parents' perceptions of child competence, parents' self-perceived competence, children's academic grades, child and adult depression, global marital adjustment, parental conflict, and observational ratings. Long et al. (1994) conducted another followup study of 26 late adolescents and young adults approximately 14 years after their participation in a series of parent training studies. Evaluations focused on relationships with parents, delinquency, emotional adjustment, and academic performance.

Findings at medium-term followup:

1. Overall, the functioning of families who participated in parent training because of noncompliant children was similar to that of a nonclinical comparison sample of families.
2. Few significant differences were noted among groups with regard to adolescent externalizing problems, such as conflict behavior, problem behavior, and parent-child disagreements.
3. Few significant differences were noted among groups with regard to internalizing problems, such as anxiety and withdrawal, perceived and actual competence, and behavioral observations of problem solving.
4. No differences were noted among groups with regard to parenting skills and personal adjustment.

Findings at long-term followup:

Generally, no differences were noted in functioning across multiple areas, including delinquency, emotional adjustment, academic performance, and relationship with parents.

McMahon et al. (1981)

McMahon et al. (1981) examined the efficacy of incorporating formal training in social learning principles into a behavioral parent training program for mothers of children referred for the treatment of noncompliance and other oppositional behaviors. The average age of the children was slightly more than 5 years. In this quasi-experimental-design study, 20 mothers were assigned either to parent training alone or to parent training plus social learning principles training. They participated in weekly treatment sessions with the child for 5 to 6 weeks. Baseline, posttreatment, and 2-month followup evaluations focused on home observations of

child-parent interactions, parents' perceptions of children's behavior, and consumer satisfaction.

Findings:

At posttreatment, the group receiving instruction in social learning principles tended to perceive their children as better adjusted and tended to be more satisfied with treatment than did the comparison group. At followup, compared with the comparison group, children displayed an increase in child compliance. In addition, the mothers in the treatment group did the following:

1. Scored higher on their understanding of social learning principles.
2. Perceived their children as better adjusted.
3. Gave their children more attention and rewards.
4. Exhibited an increase in contingent parental attention.

Rogers et al. (1981)

Rogers et al. (1981) examined whether parents of low, middle, and upper socioeconomic status differed in their interactions with and perceptions of their children and in their responsiveness to parent training. The mothers in the 31 mother-child pairs that were referred by a clinic for the children's noncompliant behavior were categorized in one of the three levels and taught to use social reinforcement and time-out techniques. The mean age of the children was approximately 5 years. The frequency and duration of treatment were not described. This nonexperimental-design study employed four pretreatment and four posttreatment observations that focused on parent-child interactions and parents' attitudes toward their children.

Findings:

1. At posttreatment, no differences were noted in parental perceptions and behavior by socioeconomic status.
2. No differences in treatment response were noted among the three groups.
3. All parent groups experienced significant improvements in parent-child interactions and parental perceptions of their children.

Fleischman (1981)

Fleischman (1981) conducted a replication of Patterson's 1974 study evaluating parent-mediated treatment of boys with conduct problems. This nonexperimental study was designed to assess changes in child aversive behavior and parental perceptions of child behavior in 35 families with sons and daughters aged 3 to 12 years. The intervention included a formal 6-week training period for parents and an open-ended treatment period (averaging 15 weeks) with a therapist who was available by parental request. Evaluations focusing on children's and parents' positive and negative behaviors, children's aggressive acts, and parents' attitudes were conducted

at baseline, during treatment, at termination, and during quarterly followups for 1 year.

Findings:

1. Significant reductions in total aversive behavior from baseline measures to termination were found for all families.
2. The degree of reduction in the target child's observed aversive behavior was greater for those families who completed treatment than for those who did not.
3. Significant changes occurred in mothers' perceptions of their targeted child; in particular, mothers perceived reduced aggression and fewer conduct problems from baseline to termination.
4. Treatment appeared to have heightened effectiveness in families with low socioeconomic status.

Kazdin et al. (1992)

Kazdin et al. (1992) assessed the effects of parent management training (PMT) and cognitive-behavioral problem-solving skills training (PSST) on children referred to a psychiatric facility for severe antisocial behavior. The mean age of subjects was 10 years. Four-fifths were boys, most were White, and most had a biologic mother as the primary caregiver. In this experimental-design study, children and their parents were randomly assigned to one of three treatment groups: PMT only, provided to parents; PSST only, provided to children; and PMT plus PSST, provided to parents and their children. The parents in the PMT group participated in 16 individual sessions lasting 1.5 to 2 hours each for 6 to 8 months; the children in the PSST group participated in 25 individual sessions lasting 50 minutes each for 6 to 8 months. Baseline, posttreatment, and 1-year followup evaluations focused on child behavior, child's social competence, and parent and family functioning.

Findings:

1. PMT alone, PSST alone, and PMT plus PSST combined were all associated with decreases in child dysfunction and aggressive, antisocial, and delinquent behavior and increased prosocial competence.
2. Posttreatment improvements at home, at school, and in the community were still present at 1-year followup in all but the PMT group.
3. The PMT plus PSST group experienced greater reductions than either the PMT-only or the PSST-only group in child aggression, antisocial behavior, and delinquency, as well as in parent stress, depression, and other symptoms of dysfunction.
4. More children in the PMT plus PSST group than children in the PSST-only group children whose parents were in the PMT-only group scored within the normative range of functioning after treatment and at followup.

Szapocznik, Rio, et al. (1986)

Szapocznik, Rio, et al. (1986) compared the effectiveness of bicultural effectiveness training (BET) and structural family therapy (SFT) in improving measures of family interactional patterns, family levels of acculturation and biculturalism, and adolescent behavior problems and psychopathology. BET uses cultural content as a basis for changing the family's style of relating to one another. In contrast, SFT focuses on changing the family's style of relating in a more process-oriented manner and may use any content that emerges from the family. This experimental-design study observed 31 Cuban-American families who had immigrated to the United States within the past 20 years and who had an adolescent manifesting symptoms of conduct disorder and/or social maladjustment. The families were randomly assigned to one of the two treatment conditions. Baseline and posttreatment measures focused on psychiatric status, child behavioral problems, structural family systems ratings, behavioral acculturation, and bicultural involvement.

Findings:

1. Families in both treatment conditions experienced improvements in family structure. No between-group differences were found.
2. Both conditions were equally effective in reducing maternal reports of adolescent behavior problems.
3. Both conditions were associated with reductions in adolescent psychopathology.
4. The biculturalism scores of participants increased more in the BET group than in the SFT group.

Szapocznik, Santisteban, et al. (1989)

Szapocznik, Santisteban, et al. (1989) compared the effectiveness of a minimum-contact control condition with family effectiveness training (FET), which targets maladaptive family interactions and intergenerational and intercultural conflicts. The FET program offered a series of 13 weekly sessions lasting 1.5 to 2 hours each. In this experimental-design study, 79 Hispanic families (76 percent Cuban and 24 percent other Hispanic) with preadolescents at risk for substance abuse were randomly assigned to one of two intervention groups or to one of two control groups. Seventy-one percent of the children were boys. The complicated research design (Solomon four-group design) included one baseline, one posttreatment, and two followup assessments (at weeks 13 and 39). Measurements focused on child behavior problems, children's self-concepts, structural family system ratings, and family environment.

Findings:

1. Parents of children in the FET group reported fewer behavior, personality, and inadequacy problems at treatment termination than did their counterparts in the control groups.
2. Children in the FET group reported greater improvements in their feelings about themselves than did children in the control groups.
3. Families in the FET group were generally observed to have greater improvements in family structure and organization, resonance (responsiveness of family members to each other), and development (appropriateness of behavior to role and age) than did families in the control groups.

Santisteban et al. (1996)

A study by Santisteban et al. (1996) examined the effectiveness of engagement family therapy, which combines brief strategic family therapy with strategic structural systems engagement as a method of bringing into and engaging in treatment families described as "difficult to reach." The study was also designed to examine factors associated with differential effectiveness. The study subjects were 193 Hispanic families of adolescents suspected of or at risk for substance abuse. The families had telephoned a family guidance center seeking services. Seventy percent of the adolescents were boys, aged 12 to 18. Approximately half of the subjects were Cuban Hispanics; the other half were composed of non-Cuban Hispanic families from Nicaragua, Colombia, Puerto Rico, Peru, Mexico, and El Salvador. The families were randomly assigned to the intervention condition or to one of two control conditions: brief strategic family therapy without engagement family therapy, or group therapy without engagement family therapy. Evaluations focusing on engagement and maintenance in therapy were conducted at intake and at an in-office therapy session within 4 weeks of initial contact.

Findings:

1. Eighty-one percent of the families assigned to the intervention condition and 60 percent in the control condition were successfully engaged in treatment.
2. Nearly all (97 percent) of the non-Cuban Hispanics and more than half (64 percent) of the Cuban Hispanics were successfully engaged in treatment.
3. An analysis of intervention failures suggests that culture and ethnicity were significant moderators of effectiveness in the intervention condition. The intervention was effective across the board, with the specific exception of Cuban families, who demonstrated parental resistance. Among these families, there appeared to be resistance of a type that was not effectively addressed by the intervention.

Parent Training Plus Family Skills Training

Bernal et al. (1980)

In a quasi-experimental-design study, Bernal et al. (1980) compared the effectiveness of two treatment approaches, behavioral parent training and client-centered parent counseling, in reducing problem behaviors among children with conduct disorder. Most of the 36 children studied were boys and ranged in age from 5 to 12 years. Their families were randomly assigned to one of two 8-week, 10-session treatment conditions until the therapists' and supervisors' client caseloads were full. Thereafter, families were randomly assigned to one of the two treatment conditions or to a waiting-list control group. The 5-week baseline and posttreatment evaluations focused on changes in child problem behaviors and in parent behaviors and perceptions.

Findings:

1. Parent reports and tests of child deviance and parent satisfaction showed a superior outcome for the behavioral group over the client-centered and waiting-list control groups, with no differences between the latter two groups.
2. At followup, however, the superior outcomes were not maintained.
3. Home observation data did not show an advantage of behavioral over client-centered treatment, nor did these two groups improve significantly in comparison with the waiting-list control group.

Dumas (1984)

Dumas (1984) evaluated the effectiveness of a behavioral parent training program designed to teach parents to respond appropriately to and modify the aggressive and oppositional behavior of their children (aged 2 to 11 years). This one-group, nonexperimental-design study included a pretest, a posttest, and a 1-year followup evaluation and examination of the differences between mothers who were and were not successful in the program. Training for 52 mother-child dyads was provided during weekly therapist consultations for 7 weeks. Evaluations during a 4- to 6-week baseline phase and a 1-year followup phase focused on changes in aggressive and oppositional child behavior.

Findings:

1. Unsuccessful mothers were twice as aversive toward their children as were successful mothers, and they were more indiscriminate in their use of aversive behavior.
2. Unsuccessful children were more aversive than were successful children during treatment and at followup.

3. During treatment, successful mothers increased their aversive behavior only in response to their children's aversive behavior. Unsuccessful mothers increased their aversive behavior independently of their children's behavior.
4. Most of the unsuccessful dyads scored high on several measures of socioeconomic disadvantage.

Hughes and Wilson (1988)

To evaluate the effectiveness of two 7-week parent training programs designed to modify the behavior of 42 children with conduct disorder, Hughes and Wilson (1988) conducted an experimental study with random assignment to either contingency management training or communication skills training or to a waiting-list control group. For each type of treatment, one-half of the parents in the group participated in the sessions with the child present. Pretreatment and posttreatment measures focused on changes in general child problem behaviors as measured by behavior problem checklists, daily report diaries, parent attitude surveys, and children's self-concept scales. Most of the children in the sample were boys, and their average age was 12 years. Of the 52 parents, 41 were women and 11 were men. Sixteen were single parents, 20 were from dual-parent couples in which both partners were participating in the study, and 16 were from dual-parent couples in which only one partner was participating. All parents were from a low socioeconomic area of a city.

Findings:

1. Parents who received either contingency management or communication skills training reported improvements in the behavior of their children in comparison with the control group.
2. Contingency management training was more effective than communication skills training in the proportion of children who reached at least a 30 percent reduction in problem behavior.
3. Participation of the child during the sessions did not have an impact on the effectiveness of either contingency management training or communication skills training.

Wahler et al. (1993)

Wahler et al. (1993) compared the impact of parent training alone and in combination with "synthesis teaching," a process in which the therapist and parent discuss the parent's child care experiences and other experiences that influence parenting. Subjects were referred to the study by social service agencies because of chronic oppositional and aggressive behavior of their children at home and in school. Of the children in the sample, 79 percent were boys, and 83 percent were White. The average age of the children was 7.5 years. Over one-third of the mothers were single parents with low incomes. All mothers described themselves as isolated and fre-

quently harassed. The purpose of the experimental-design study was to identify differences in the experiences of these two sets of women. A total of 29 mother-child dyads were randomly assigned to one of the two treatment conditions and received 60- to 90-minute weekly clinic sessions for 9 months. At baseline and at 6 and 12 months, the investigators measured children's aversive responses and assessed maternal inconsistency during child-mother responses and a coding of conversations between mothers and therapists.

Findings:

1. No evidence of a treatment effect was found during the treatment period.
2. At the 6-month followup, mothers who received the combined treatment showed significantly fewer indiscriminate reactions than did the mothers receiving only parent training.
3. At the 12-month followup, children of mothers who received the combined treatment showed fewer incidents of aversive behavior than did children of mothers who received parent training only. These children also became less aversive in their behavior over the measurement phases.

Practice Evidence Reviewed for Approach 1, Cluster 2

The practice evidence for parent and family skills training as indicated preventive measures addresses family skills training.

Family Skills Training

Nurturing Program for Parents and Children

The Nurturing Program for Parents and Children was designed to modify abusive or potentially abusive parent-child interactions by providing training on developmental expectations, empathy, behavior management, and self-awareness. A nonexperimental-design evaluation was conducted with 121 abusive adults and their 150 abused children who participated in more than 15 sessions lasting 2.5 hours each. Subjects were primarily White, poor, and from Midwestern cities. Sixty percent were unemployed. Baseline, posttest, and 1-year followup measures focused on parent-child interactions, parents' knowledge of behavior management, parenting attitudes of parents and children, personality characteristics of parents and children, and rates of parental child abuse.

Findings:

1. Positive changes occurred in the parenting and child-rearing attitudes of abusing parents.
2. At 1-year posttreatment, parents maintained empathic attitudes toward children's needs and a clear differentiation of parent-child roles. Attitude changes regard-

ing corporal punishment and inappropriate developmental expectations were not generally maintained.

3. Positive changes occurred among both parents and children regarding child self-awareness and parent-child role reversal.
4. At 1-year posttreatment, children continued to increase their self-awareness and to decrease their beliefs in the value of corporal punishment.
5. Positive personality changes among parents included intelligence, enthusiasm, social boldness, and self-assuredness, as well as decreases in radicalism, anxiety, and tough poise.
6. Positive personality changes among children included increases in assertiveness, enthusiasm, and tough poise.
7. At posttreatment, positive changes in family patterns included increases in family cohesion, expressiveness, independence, and a decrease in family conflict.
8. One-year posttreatment, further positive family changes included increases in family cohesion, expressiveness, organization, a moral-religious emphasis, and decreases in family conflict.
9. At 1-year followup, 7 percent of the families had been charged with additional acts of child abuse.

Collateral Evidence Reviewed for Approach 1

The following research evidence for Approach 1 focuses on parent training combined with teacher training. Because the parent and teacher training occurred concurrently, it is not possible to determine the effects of the parent training only. As a result, the following collateral evidence was not used in the assessment of the level of evidence for Prevention Approach 1. However, it is presented here because this research may shed light on the issues under discussion.

Hawkins, Von Cleve, and Catalano (1991)

Hawkins, Von Cleve, and Catalano (1991) evaluated the short-term effectiveness of concurrent parent and teacher training programs against antisocial behavior in 1st and 2nd grade students. A total of 458 children were evaluated, and 37 teachers participated in the study. Approximately half the students were non-White boys. Parents of students randomly assigned to the treatment condition were offered parent training involving modeling of skills, role playing, feedback, and homework. The parent training program was offered in seven consecutive weekly sessions to all parents of students in the intervention group when their children were in the 1st grade and again when they were in the 2nd grade. First grade teachers received training in proactive classroom management methods, interactive teaching, and cognitive social skills prior to the program. Second grade teachers received the same training prior to the subjects' entry in the 2nd grade. In this experimental longitudinal study,

a self-report inventory measuring prosocial and antisocial orientations was completed by 1st grade students at the start of the school year. A teacher report was used to measure the program's effect at the end of the 2nd grade. Program implementation was based on a weekly teacher report and on observations in the fall and spring when subjects were in the 2nd grade.

Findings:

1. Boys in the intervention group were rated lower (i.e., better) on a child behavior checklist on the aggressive and externalizing antisocial subscales than boys in the control group.
2. African-American boys in both groups had similar levels of aggressive and externalized deviant behavior, suggesting that the intervention did not have an effect on them.
3. White boys in the intervention group were less aggressive and had less externalized deviant behavior after the intervention than did White boys in the control group.
4. Girls in the intervention group were rated lower (i.e., better) on the self-destructiveness subscale than were girls in the control group.
5. White girls in the intervention group were rated as less self-destructive, depressed, and nervous-anxious after the intervention than were White girls in the control group.
6. Ratings of African-American girls in both groups did not differ on any scale. The reason for different effects of the intervention between African-American and White children is not known, but this indicates a need for studies of intervention effects according to ethnic backgrounds and gender.

Hawkins et al. (1992)

In a modified followup to the Hawkins et al. (1991) study described above, Hawkins et al. (1992) further assessed the impact of the parent and teacher training program on child attachment and commitment to school and the initiation of alcohol use at an early age. The followup study expanded the sample to include children in grades 1 through 4 in the original schools and 5th grade students at an additional 12 schools in the Seattle school system when the original sample reached the 5th grade. This followup study examined the impact of the interventions on children in the 5th grade on the following measures: child perception of proactive family management by parents, family communication, family bonding, attachment and commitment to school, rates of initiation of delinquent behavior, and rates of alcohol use initiation. Nearly half of the sample participants were White, 25 percent were African American, and 21 percent were Asian American.

Findings:

Students who received the intervention were significantly more likely than those who did not to report the following:

1. Proactive family management by their parents.
2. Greater family communication and involvement.
3. Greater bonding with family.
4. Perception of school as more rewarding.
5. More attachment and commitment to school.
6. Not having ever had an alcoholic drink.
7. Not having begun delinquent behavior.

ABSTRACTS FOR PREVENTION APPROACH 2: FAMILY IN-HOME SUPPORT AS INDICATED PREVENTIVE MEASURES

Research Evidence Reviewed for Approach 2: Family In-Home Support

The following abstracts of research studies constitute the research evidence for family in-home support as indicated preventive measures.

Henggeler et al. (1992)

Henggeler et al. (1992) evaluated the effectiveness of multisystemic therapy (MST), a family- and home-based treatment. MST is designed to intervene directly in systems and processes such as parental discipline, family affective relations, peer associations, and school performance, which are known to be related to antisocial behavior in adolescents. In this experimental design study, 84 youth and their families were randomly assigned to either MST or the standard services provided by the Department of Youth Services. Youth in the control group received court orders including one or more stipulations, such as curfew and school attendance requirements. The 43 youth and their families who received MST participated in the intervention for an average of 13 weeks, averaging 33 hours of direct contact with therapists. The 41 youth in the control group met at least monthly with probation officers, who emphasized the importance of complying with the stipulations and the consequences of not doing so. Baseline and posttreatment measures focused on socioeconomic characteristics, justice system and criminal involvement, and psychosocial characteristics. A followup study was conducted by Henggeler et al. (1993) an average of 2.4 years after participants' referral to the original study, focusing on socioeconomic status and social characteristics, as well as justice system involvement and criminal activity.

Findings:

1. At posttreatment, subjects in the MST group had fewer arrests and less incarceration and self-reported criminal activity than did those in the control group.

2. At posttreatment, families in the MST group showed more improvement in outcomes related to family cohesion and aggression with peers than those in the control group.
3. At posttreatment, MST was shown to be equally effective for youths and families with varying cultural backgrounds and psychosocial strengths and weaknesses and for youths of both sexes.
4. At 120 weeks after referral to the original study, 39 percent of subjects in the MST group and 20 percent of those in the control group had not been rearrested.
5. The mean times to rearrest for youths receiving MST and for youths in the control group were 56 and 32 weeks, respectively.

Borduin et al. (1995)

Borduin et al. (1995) replicated the above studies of Henggeler et al. (1992, 1993) examining use of MST with juvenile serious offenders. This study added several important methodological improvements, including a relatively large sample size to permit subgroup analyses, a longer followup period for rearrests, observational measures of family relations, and a comparison group that received roughly the equivalent number of treatment hours. The experimental-design study, using pretest and posttest measures, a control group, random assignment to conditions, and a 4-year followup evaluation for arrests, was used to compare the effectiveness of MST with that of individual therapy. The study sample consisted of 176 families, each of which had an adolescent offender aged 12 to 17 years who was referred by juvenile court personnel. The youths had an average of 4.2 previous arrests, and the mean severity of the most recent arrest was 8.8 on a 17-point seriousness scale, where 8 corresponds to assault and battery. The group was 68 percent boys, 70 percent White, and 30 percent African American. The average numbers of treatment hours were 24 for MST and 29 for individual therapy. Evaluations, which focused on individual adjustment, family relations, peer relations, and criminal activity, were conducted at baseline, postintervention, and 4 years later.

Findings:

1. At posttest, MST was more effective than individual therapy in improving key family correlates of antisocial behavior and in ameliorating adjustment problems in individual family members. There were improvements in perceived family relations and observed family interactions, decreased symptomatology in parents, and decreased behavior problems in the youths.
2. Analysis of the 4-year followup rearrest data showed that MST was more effective than individual therapy in preventing criminal behavior, including violent offenses. The offenses were less serious for youths treated with MST who had been rearrested than for their untreated peers.

Walton et al. (1993)

Walton et al. (1993) compared the effectiveness of an in-home, family-based reunification service with routine out-of-home care reunification services in returning children to and keeping them in their homes. The sample of children was primarily White and ranged in age from 1 to 17 years, with a mean age of 11 years. Most caregivers were White women with low incomes. Intensive in-home reunification services were provided by caseworkers over a 90-day period, with at least three weekly home visits per family. The services provided included transportation, cash assistance, clothing, basic food items, household repairs, and training in such skills as communication, parenting, and anger management. Caseworkers assigned to the control group visited the child monthly to ensure stable placement and to assist the family in obtaining the resources necessary to enable the child to return home (e.g., mental health counseling and parenting skills training). In this experimental-design study, 110 families were randomly assigned to the treatment or the control condition. Evaluations were conducted at baseline, at the end of the 90-day service period, and at 6 and 12 months after the end of the service period. Evaluations focused on general placement issues and demographic characteristics.

Findings:

1. More children in the intervention group than in the control group (93 percent versus 29 percent) had been returned to their homes at the end of the 90-day intervention period, at the 6-month followup (70 percent versus 41 percent), and at 12 months after the intervention period (75 percent versus 49 percent).
2. Children in the intervention group spent a greater average number of days than did control children living at home during the 90-day intervention period (65 versus 15 days), during the first 6-month followup period (141 versus 83 days), and during the second 6-month followup period (151 versus 83 days).
3. During the total 15-month intervention and followup, more children in the intervention than in the control group returned to and remained at home or, after returning home, reentered out-of-home care briefly and then returned (77 percent) than did children in the control group (47 percent).

Lutzker et al. (1984)

Lutzker et al. (1984) compared the effectiveness of conventional child protection services with that of Project 12-Ways, an in-home ecobehavioral approach to the treatment and prevention of child abuse and neglect. Project 12-Ways is a comprehensive, multiple-setting behavior management program that provides services directly in clients' homes, schools, foster care settings, and day-care settings. Services include training in parent-child skills, basic life skills, health maintenance and nutrition, home safety, stress reduction, money management, leisure time, job finding,

and self-control. Other available services include alcoholism treatment referral and marital counseling. This nonexperimental study used a historical cohort design, reconstructing data from records for a group receiving services from Project 12-Ways and for a comparison group. Evaluation was limited to the family abuse recidivism rate, based on State reports of child abuse and neglect. The quantity and duration of services were not described for either condition. In a supplemental study, Lutzker and Rice (1987) examined data on repeat child abuse and neglect for 710 families from 1 to 5 years after receiving Project 12-Ways services.

Findings:

1. The abuse recidivism rates were consistently lower for families in the treatment group than for those in the comparison group, but over time the rate increased for both groups.
2. For fiscal year 1980, recidivism rates were 4 percent for families in the treatment group and 26 percent for those in the comparison group.
3. For fiscal year 1981, recidivism rates were 12 percent for families in the treatment group and 28 percent for those in the comparison group.
4. For fiscal year 1982, recidivism rates were 22 percent for families in the treatment group and 31 percent for those in the comparison group.
5. For fiscal year 1983, recidivism rates were 25 percent for families in the treatment group and 35 percent for those in the comparison group.

Findings from the supplemental study:

1. Families receiving Project 12-Ways services were less likely to engage in child abuse than were families receiving other child protection services (21 percent versus 29 percent).
2. For all treatment years except fiscal year 1981, families who received Project 12-Ways services had lower recidivism rates than did families who received other child protection services.
3. The cumulative recidivism rate increased gradually for both treatment groups.

Berry (1992)

Berry (1992) evaluated the effectiveness of intensive family preservation services provided by the In-Home Family Care program in preventing the out-of-home placement of children. An additional goal of this study was to identify family and service characteristics associated with successful family preservation. This nonexperimental study examined data from a historical cohort over a period of 3 years. The study sample included 411 families, including 896 children in San Francisco and Oakland, California, most of whom were African American, Latino, or White. All families had at least one child at risk of imminent out-of-home placement. Measurements were derived from demographics, child and parent problems, family function level,

household resource level, family cooperation levels, service characteristics, and placement within 6 or 12 months after service termination.

Program effectiveness findings:

1. Of 367 families for whom data were available and who received intensive family preservation services, 88 percent avoided child removal for 12 months after receiving services.
2. Of the 896 children served in the 3-year study period, 96 (11 percent) were placed in out-of-home care.

Family and service characteristics:

1. Families with members having a developmental disability or mental handicap had more out-of-home placements than did families without such problems (24 percent versus 13 percent).
2. Families experiencing child placement were rated as less cooperative during the service period than were families that did not experience placement.
3. Families who remained together began treatment at higher levels of functioning than did families who experienced child placement in measures of noncrowdedness, number of household resources, physical household condition, health care and grooming, and encouragement of childhood development.
4. The key predictor of success was the proportion rather than the amount of time the worker spent in the home.

Haapala and Kinney (1988)

Haapala and Kinney (1988) examined the effectiveness of Homebuilder, an intensive home-based family preservation program designed to treat status-offending youths who are in danger of imminent out-of-home placement as well as their families. The youth sample was 64 percent boys, primarily White, aged 6 to 17 years. Most had never lived in foster, group, or residential placement. Each family was linked with one Homebuilder therapist, who had a caseload of two families at a time and who was available 24 hours a day, 7 days a week. Approximately 50 hours of intervention were provided to each family for approximately 1 month. In this nonexperimental, one-group, posttest-only design, data from a subsample of 64 youths from a total sample of 678 youths focused on family problems and characteristics; sociodemographic characteristics; and placement in foster, group, or psychiatric care.

Findings:

1. Family conflict was the most common family problem at the time of referral (98 percent of youths). Other problems at referral included youths' behavior (66 percent), school-related problems (30 percent), parenting issues (30 percent), and runaway youths (25 percent).

2. Of the 678 status-offending clients receiving services, 592 (87 percent) avoided out-of-home placement during the 12-month followup period.
3. Rates of placement avoidance were stable across the 4 years of the contract. Eighty-six percent of the youth avoided placement during the first year, 91 percent during the second year, 86 percent during the third year, and 85 percent during the fourth year.

Practice Evidence Reviewed for Approach 2: Family In-Home Support

The following abstracts of prevention practice case studies constitute the practice evidence for family in-home support as indicated preventive measures.

In-Home Care Demonstration Projects

The In-Home Care Demonstration Projects resulted from California State Assembly Bill 1562, which provided funding for three self-care projects for latchkey children and eight in-home care projects to provide intensive short-term services to families of children at imminent risk of removal from the home. Within 1 week of referral, families received services such as individual counseling, crisis intervention, family counseling, parenting skills training, and case management. Families received an average of 60 hours of services over an average of 7 weeks, given approximately every other day for 2 to 4 hours. Followup services focused on linking families to support or counseling services, such as Parents Anonymous, Alcoholics Anonymous, Victims Anonymous, long-term therapy, addiction treatment, and brief consultations. Data were collected on 709 families, including 1,740 children, over a period of 3 years. Followup data were collected on 95 percent of these families and children. The legislation required an evaluation of the projects during the 3 years of operation. The in-home care projects were compared with traditional services for their effects on placement rates, placement incidents, average length of time per placement incident, and placement costs.

Findings:

1. No significant difference was found in placement rates between the intervention and comparison groups.
2. The number of average placement days was 73 for the intervention group and 77 for the comparison groups. Families who received intervention services used 1,500 fewer days of placement than did comparison families.
3. The costs of placement during the 8-month study period were $141,375 for intervention families and $145,388 for comparison families.
4. Families who experienced placement after receiving intensive in-home services were more likely than comparison families to have a primary caretaker with at least one reported disability, to be receiving public assistance, to have experienced previous placement of their children, to have subsequent investigations

of abuse and neglect, and to score lower and make less progress on most indices of a child well-being scale at intake and at termination.

5. Children who were placed after receiving intensive in-home services were more likely than control children to have at least one reported disability, to be at risk of neglect rather than other types of maltreatment, to be younger, to have experienced one or more placements, and to be a dependent of the court.
6. Families who did not experience placement received more intensive services than families who did experience placement.

Intensive Family Preservation Services

The Intensive Family Preservation Services of the State of Connecticut are targeted to families whose children are at imminent risk of removal from their homes. Two evaluative efforts were conducted. The primary study of 662 families (1,000 adults and 1,775 children) whose children were at imminent risk of placement included a 1-year followup. A 2-year followup of 40 study families (20 families in which all children were placed and 20 families in which no children were placed) was conducted to provide information on an additional year of placement activity and the costs associated with the second followup year.

Findings from the primary study:

1. Families receiving family preservation services showed greater improvements at termination than did families not receiving services.
2. Families participating in family preservation had the greatest problems in parenting skills, which was also the area that showed the greatest improvement at termination of services.
3. Of the children participating in family preservation services, 82 percent were not placed out of their homes during the followup year. However, there were no differences in placement rates between families who were served and families who were referred but not served.
4. Almost 40 percent of the families experienced at least one critical incident during participation in services.
5. Twenty-six percent of the families terminated early from family preservation services.

Findings from the followup study:

1. Of the 20 families who experienced no placements in the first year, just 3 (7 children) experienced placement in the second year.
2. Nearly half of the children (21 of 46) who were placed during the first year were returned to their homes within 24 months, an improvement over the State average of 31 months.
3. Eighty-five percent of the 46 children who had never been placed were not removed from the study.

ABSTRACTS FOR PREVENTION APPROACH 3: FAMILY THERAPY AS INDICATED PREVENTIVE MEASURES

Research Evidence Reviewed for Approach 3: Family Therapy

The following are abstracts of research studies that constitute the research evidence for family therapy as indicated preventive measures.

Alexander and Parsons (1973), Klein et al. (1977)

Alexander and Parsons (1973) evaluated the effectiveness of a short-term, behaviorally oriented family intervention for families with delinquent teenagers aged 13 to 16 years in Salt Lake City, Utah. The intervention was designed to reduce maladaptive interaction patterns in families, to increase mutual positive reinforcement, and to reduce recidivism rates among the teenagers. In this experimental-design study with posttreatment measures only, 46 families were randomly assigned to the short-term, behaviorally oriented family therapy; 19 were assigned to a client-centered family group program; 11 attended a psychodynamic family counseling program sponsored by the Church of Jesus Christ of Latter-day Saints; and 10 were assigned to a no-treatment control group. The amount of treatment provided through short-term behavioral intervention and client-centered group treatment was not described. Posttreatment measures at 6- to 18-month intervals focused on family interactions and processes and delinquency recidivism rates. In addition, Klein et al. (1977) examined the effects of these treatment conditions with regard to contact with the court system by younger siblings 2.5 to 3.5 years after treatment termination for the referred child.

Findings:

1. The recidivism rate for delinquent youths from families receiving the short-term behavioral intervention was 26 percent. This rate was 47 percent for families receiving client-centered family group treatment, 50 percent for families receiving no treatment, and 73 percent for families receiving psychodynamic therapy.
2. Families receiving behaviorally oriented family treatment exhibited more equality (i.e., lower variance) in talk time, less silence, and more positive interruptions than did families receiving alternative or no treatment.
3. The length of time to first recidivistic offense after treatment did not vary among treatment and control groups.
4. Siblings in families that received short-term behaviorally oriented family therapy were less likely to be involved with the court system (20 percent) than were subjects receiving no treatment (40 percent), the group receiving client-centered therapy (59 percent), or the group receiving psychodynamic therapy (63 percent).

Barton et al. (1985)

Barton et al. (1985) reported on three studies that evaluated the effectiveness of functional family therapy (FFT) used by undergraduate paraprofessional therapists and foster care caseworkers in the treatment of seriously delinquent youth who had been recently released from a State criminal justice institution.

The goal of the "Paraprofessional Therapists" study was to evaluate the effectiveness of FFT when conducted by undergraduate paraprofessionals. In this study, eight undergraduate students received 16 FFT training sessions lasting 2 hours each, observed videotaped FFT sessions, participated in role playing, and spent 8 hours in modules on behavioral intervention procedures with children, behavioral contracting, and communication training. They participated in an average of 10 sessions with randomly assigned families of status offenders who had been referred to neighborhood probation units for three to six status offenses.

The goal of the "Foster Placement" study was to evaluate the effectiveness of FFT to treat foster care cases after receiving 1 week of FFT training. Two State foster care workers implemented FFT before deciding whether to place a child or children in foster care in 109 cases and compared the foster placement outcomes of these cases with those of 216 other State placement cases that did not receive FFT. They reviewed caseworker logs to compare case outcomes, using the proportion of cases placed in foster care for 72 hours before and after implementation of FFT training.

The goal of the "Hard-Core Delinquent Study" was to compare the effectiveness of FFT and alternative treatment in preventing recidivism of severe offenses by seriously delinquent youth who had recently been released from a State institution. Thirty youth received FFT and 44 youth received the alternative treatment, which consisted primarily of placement in a group home. All youth were monitored for 15 months after their release from incarceration.

Findings from the "Paraprofessional Therapists" study:

The recidivism rate of 26 percent for families receiving FFT was comparable to the FFT recidivism rates in studies using professional therapists and was lower than the annual recidivism rate of 51 percent for the juvenile court district. The rates of defensiveness declined in a manner consistent with the decline in rates of defensiveness produced in other applications of FFT.

Findings from the "Foster Placement" study:

The rate of foster care use for families who received training significantly decreased from 48 percent before FFT training to 11 percent after training. The rate of foster care use for the comparison group increased from 43 percent before FFT training to 49 percent after FFT training.

Findings from the "Hard-Core Delinquent" study:

The recidivism rate after treatment was lower for the group receiving FFT training (60 percent) than for the group receiving alternative treatment (93 percent). Youths who received FFT treatment were significantly less likely to commit another offense than comparison youths and committed significantly fewer total offenses.

Gordon et al. (1988)

Gordon et al. (1988) compared the effectiveness of standard probation with a home-based, time-unlimited, behavioral-systems family therapy model in the treatment of juvenile offenders of low socioeconomic status (mean age, 15 years). In this quasi-experimental study, 54 offenders were nonrandomly assigned to treatment or to control conditions. The treatment group participated in an average of 16 sessions of therapy plus assessment and education. Their parents also received an unspecified amount of parent training. The group on probation met with a probation officer once or twice monthly. The primary outcome, recidivism, was measured by the number and severity of offenses during a 2.5-year followup period.

Findings:

1. The recidivism rates for the treatment and comparison groups were 11 and 67 percent, respectively.
2. The annual average recidivism rates for the treatment and comparison groups were 5 and 25 percent, respectively.
3. The significant differences in recidivism rates held true in gender-specific comparisons.

Szapocznik, Murray, et al. (1989)

Szapocznik, Murray, et al. (1989) compared the effectiveness of structural family therapy, psychodynamic child therapy, and a recreational control condition in the reduction of behavioral and emotional problems and in improvements in child and family functioning among Hispanic boys aged 6 to 12 years who had been diagnosed with opposition disorder, anxiety disorder, conduct disorder, or adjustment disorder. Treatment involved 12 to 24 contact hours over a 6-month period. Structural family therapy sessions of 60 to 90 minutes in length occurred weekly early in treatment and less frequently thereafter. The individual psychodynamic child therapy sessions consisted of one weekly 50-minute session with nondirective play situations. In this experimental study, 69 families were randomly assigned to one of two intervention conditions or to a control condition. Evaluations at baseline, posttreatment, and 1-year followup focused on attrition, child behavior problems, anxiety and depression ratings, psychodynamic child ratings, and structural family system ratings.

Findings:

1. Families receiving structural family therapy experienced more protection of family integrity than the other groups, especially as compared with the dramatic declines for families receiving psychodynamic child therapy.
2. Both treatment conditions were essentially equivalent in reducing child behavioral and emotional problems, according to parent and self-reports.
3. Both treatment conditions were essentially equivalent in improving psychodynamic ratings of child functioning.

Santisteban et al. (1997)

Santisteban et al. (1997) conducted a nonexperimental study to evaluate the effectiveness of brief structural family therapy to prevent drug use initiation among Hispanic and African-American youth. The sample included 103 Hispanic and 19 African-American boys and girls between the ages of 12 and 14 years who had been referred to treatment by their school counselors because of conduct problems or antisocial behavior with peers. This intervention uses a flexible implementation model to provide only as much therapy as is needed by a particular family. Most families receive 12 to 16 weekly family sessions over 4 to 6 months. All families receive the core components of joining, family pattern diagnosis, and restructuring. In this one-group study, the adolescents and their parents completed measures of adolescent behavior problems, family functioning, and substance use before treatment, immediately after treatment, and approximately 9 months after treatment.

Findings:

1. Both Hispanic and African-American adolescents experienced significant improvements in behavior problems after therapy.
2. Adolescents experienced significant reduction of social aggression and conduct problems.
3. Parents and adolescents reported significant improvements in family functioning over the course of the intervention.
4. Hispanic adolescents experienced strongest improvements in conduct disorder, anxiety and withdrawal, and family functioning.
5. African-American adolescents experienced improvements comparable to those of Hispanic students across all behavior dimensions, but only modest improvements in family functioning.
6. Improvements in parent-reported adolescent behavior problems predicted a reduced initiation of substance use after treatment.

Henggeler et al. (1986)

Henggeler et al. (1986) compared the effectiveness of multisystemic family-ecological therapy and an alternative therapy in improving family dynamics in families of juvenile offenders and the behavior problems of these juveniles. The mean age of the juveniles was 15 years, and 84 percent were male. The families, who lived in Memphis, Tennessee, were largely African American (65 percent) and had low socioeconomic status (75 percent), a mean size of 6.4 members, and in many cases an absent father (62 percent). In this quasi-experimental study with two treatment groups and a nonequivalent control group, 113 families were assigned nonrandomly to either multisystemic or alternative treatment. Forty-four well-adjusted adolescents served as developmental control subjects. Subjects received multisystemic therapy for an average of 20 hours. The average total number of hours of alternative treatment received by subjects was 24 hours over about 3 months. The alternative therapy varied according to agency but included client-centered and behavioral approaches. Baseline and posttreatment evaluations focused on child problem behaviors, parent and adolescent personality characteristics, and family interactions and relationships.

Findings:

At posttreatment and compared with baseline, the following observations were made:

1. Adolescents in the multisystemic group condition demonstrated fewer conduct problems and anxious-withdrawn behaviors and less immaturity and association with delinquent peers than did those in the control condition.
2. The mother-adolescent, father-adolescent, and marital dyads in the multisystemic group condition demonstrated more affection and warmth than did those in the control condition.
3. Adolescents in the multisystemic condition were more involved in family interactions, as shown by an increase in family conversations, than were those in the control condition.
4. Adolescents in the alternative-therapy condition demonstrated no change on behavior and personality variables, and the father-adolescent and marital dyads in this group demonstrated deterioration in warmth and affection.
5. Adolescents in the control condition showed no change on behavior and personality variables and no change on family relations variables. Mothers in this condition, however, showed a decrease in supportive communications.

Mann et al. (1990)

Mann et al. (1990) evaluated the effectiveness of multisystemic therapy in the treatment of adolescent antisocial behavior by using the therapy to treat "cross-generational coalitions," in which a parent, usually the mother, forms a stable coalition with the child against the other parent in family transactions (as opposed to stable

mother-father coalitions). In this quasi-experimental study with two treatment groups and a nonequivalent comparison group, 45 family triads (mother, father, and son or daughter) with adjudicated and delinquent adolescents (aged 13 to 17 years) were assigned to groups receiving multisystemic therapy or individual therapy. Most adolescent subjects were boys, 61 percent were White, and 39 percent were African American. Sixteen well-adjusted adolescents served as a control group. The multisystemic treatment involved a mean of 21 hours of family therapy and school-related consultation. The individual therapy, which focused on expressing feelings, developing insight, and providing support for behavior change, averaged 29 hours. Pretreatment and posttreatment evaluations focused on measures of observed family relationships and self-reported symptoms.

Findings:

1. Before treatment, families with delinquent children demonstrated evidence of cross-generational coalitions.
2. After treatment, fathers, mothers, and adolescents receiving multisystemic therapy showed greater decreases in their symptoms than did their counterparts receiving individual therapy.
3. Families in the multisystemic-treatment condition demonstrated many more positive changes in dyadic interaction than did those in the individual-therapy condition.
4. Mother-adolescent dyads in the multisystemic condition showed a greater decrease in their verbal activity than did mother-adolescent dyads in the individual-therapy group.
5. Father-adolescent dyads in the multisystemic condition showed a greater increase in supportiveness and a greater decrease in verbal activity and in conflict and hostility than did the individual-therapy group.
6. Individual symptomatology and family interactions improved from reassessment to postassessment in the treatment group but did not improve in the individual-therapy group.

Springer et al. (1992)

Springer et al. (1992) evaluated the effectiveness of an organized art and play therapy, embedded within peer group and family therapy, on the competencies and problem behaviors of children of individuals with substance abuse problems. The children's ages ranged from 4 to 11 years; 56 percent were White, and 39 percent were Hispanic. Forty percent of the families were headed by a single parent, and 27 percent received Aid to Families With Dependent Children. A total of 311 children participated in the program; of these, 42 percent actively participated throughout the 12-week program and were graduated. Initially, the peer group sessions and the family interaction group sessions were each 1.5 hours and took place weekly. By the

end of the project period, six peer group and six family interaction sessions were held weekly. In this nonexperimental, single-group study design, baseline and posttreatment evaluations focused on child competencies and problem behaviors, the number of treatment sessions attended by children, referral sources, and demographic characteristics.

Findings:

1. Parent reports of child competencies increased and problem behaviors decreased for the total sample at posttreatment compared with baseline.
2. Among boys aged 6 through 11 years, significant improvements were noted in four syndromes: depression, hyperactivity, delinquency, and aggressiveness.
3. Among girls aged 6 through 11 years, significant improvements were noted in four syndromes: sexual problems, depression, cruelty, and hyperactivity.

McPherson et al. (1983)

An experimental-design study by McPherson et al. (1983) compared the effectiveness of short-term, intensive family counseling with casework-oriented probation for youthful offenders. The subjects were 75 offenders who had committed a status offense, misdemeanor, or felony; had not been supervised before by the county juvenile court; and were less than 17 years of age. They were randomly assigned by systematic sampling to intervention (n = 15) and control (n = 60) conditions. The intervention was family counseling, with approximately 10 sessions lasting 2 hours each for 3 to 4 months. Some sessions were held jointly with the parents and children, and other family members were encouraged to participate. The therapy was designed to help participants acquire new skills and ideas, understand and appreciate one another, improve communication, learn effective discipline methods, learn self-management skills, and examine their own and other family members' expectations.

The effectiveness of the treatment was measured by reduced recidivism (referral of any kind, criminal referrals, or stay in detention at 4 and 7 months) and improved family functioning. Recidivism was evaluated during two time periods: from the date of assignment to the end of the 4-month treatment phase, and from the date of assignment to the end of 7 months. Fifteen control-group subjects were randomly assigned to a subcontrol group to measure and compare family functioning with the 15 intervention subjects. These subjects were evaluated on four measures of family functioning at the end of 3 months after assignment: parental child-rearing attitudes, parent-adolescent communication, parent's report of the child's behavior problems, and parent's report of the child's social competence.

Findings:

1. Family counseling was more effective than probation in reducing the percentage of recidivists and the amount of recidivism for total (any kind) and criminal referrals during both time periods.
2. Family counseling was more effective than probation with regard to two family functioning measures: Parents receiving the intervention had less need to maintain excessive control over their children than control parents, and children receiving the intervention demonstrated greater social competence than control subjects.
3. Family counseling, however, was not more effective than probation in improving the quality of communication or decreasing children's behavior problems.

RESEARCH EVIDENCE REVIEWED

Aktan, G. B., Kumpfer, K. L., & Turner, C. W. (1996). Effectiveness of a family skills training program for substance use prevention with inner city African-American families. *Substance Use and Misuse, 31*(2), 157–175.

Alexander, J. F., & Parsons, B. V. (1973). Short-term behavioral intervention with delinquent families: Impact on family process and recidivism. *Journal of Abnormal Psychology, 81*(3), 219–225.

Anastopoulos, A. D., Shelton, T. L., DuPaul, G. J., & Guevremont, D. C. (1993). Parent training for attention-deficit hyperactivity disorder: Its impact on parent functioning. *Journal of Abnormal Child Psychology, 21*, 581–596.

Arnold, J. E., Levine, A. G., & Patterson, G. R. (1975). Changes in sibling behavior following family intervention. *Journal of Consulting and Clinical Psychology, 43*(5), 683–688.

Bank, L., Marlowe, H., Reid, J. B., Patterson, G. R., & Weinrott, M. R. (1991). A comparative evaluation of parent-training interventions for families of chronic delinquents. *Journal of Abnormal Child Psychology, 19*(1), 115–133.

Barton, C., Alexander, J. F., Waldron, H., Turner, C. W., & Warburton, J. (1985). Generalizing treatment effects of functional family therapy: Three replications. *American Journal of Family Therapy, 13*(3), 16–26.

Baum, C. G., & Forehand, R. (1981). Long term followup assessment of parent training by use of multiple outcome measures. *Behavior Therapy, 12*, 643–652.

Bernal, M. E., Klinnert, M. D., & Schultz, L. A. (1980). Outcome evaluation of behavioral parent training and client-centered parent counseling for children with conduct problems. *Journal of Applied Behavior Analysis, 13*, 677–691.

Berry, M. (1992). An evaluation of family preservation services: Fitting agency services to family needs. *Social Work, 37*(4), 314–321.

Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M., & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology, 63*, 569–578.

Catalano, R. F., Haggerty, K. P., Gainey, R. R., Hoppe, M. J., & Social Development Research Group. (1995). *Reducing parental risk factors for children's substance abuse: Preliminary outcomes with opiate-addicted parents.* Unpublished manuscript.

Dishion, T. J., & Andrews, D. W. (1995). Preventing escalation in problem behaviors with high-risk young adolescents: Immediate and 1-year outcomes. *Journal of Consulting and Clinical Psychology, 63*, 538–548.

Dubey, D. R., O'Leary, S. G., & Kaufman, K. F. (1983). Training parents of hyperactive children in child management: A comparative outcome study. *Journal of Abnormal Child Psychology, 11*(2), 229–246.

Dumas, J. E. (1984). Interactional correlates of treatment outcome in behavioral parent training. *Journal of Consulting and Clinical Psychology, 52*(6), 946–954.

Felner, R. D., Brand, S., Erwin Mulhall, K., Counter, B., Millman, J. B., & Fried, J. (1994). The parenting partnership: The evaluation of a human service/corporate workplace collaboration for the prevention of substance abuse and mental health problems and the promotion of family and work adjustment. *Journal of Primary Prevention, 15*(2), 123–146.

Fleischman, M. J. (1981). A replication of Patterson's "Intervention for boys with conduct problems." *Journal of Consulting and Clinical Psychology, 49*(3), 342–351.

Forehand, R., & Long, N. Outpatient treatment of the acting out child: Procedures, long term followup data, and clinical problems. *Advances in Behaviour Research and Therapy, 10*, 129–177.

Gordon, D. A., Arbuthnot, J., Gustafson, K. E., & McGreen, P. (1988). Home-based behavioral-system family therapy with disadvantaged juvenile delinquents. *American Journal of Family Therapy, 16*(3), 243–255.

Guerney, L. (1977). A description and evaluation of a skills training program for foster parents. *American Journal of Community Psychology, 5*(3), 361–371.

Guerney, L. F., & Wolfgang, G. (1981). Long-range evaluation of effects on foster parents of a foster parent skills training program. *Journal of Clinical Child Psychology, 10*(1), 33–37.

Haapala, D. A., & Kinney, J. M. (1988). Avoiding out-of-home placement of high-risk status offenders through the use of intensive home-based family preservation services. *Criminal Justice and Behavior, 15*(3), 334–348.

Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology, 22*(1), 132–141.

Henggeler, S. W., Melton, G. B., & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology, 60*(6), 953–961.

Henggeler, S. W., Melton, G. B., Smith, L. A., Schoenwald, S. K., & Hanley, J. H. (1993). Family preservation using multisystemic treatment: Long-term followup to a clinical trial with serious juvenile offenders. *Journal of Child and Family Studies, 2*(4), 283–293.

Horn, W. F., Ialongo, N. S., Pascoe, J. M., Greenberg, G., Packard, T., Lopez, M., Wagner, A., & Puttler, L. (1991). Addictive effects of psychostimulants, parent training, and self-control therapy with ADHD children. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(22), 233–240.

Hughes, R. C., & Wilson, P. H. (1988). Behavioral parent training: Contingency management versus communication skills training with or without the participation of the child. *Child and Family Behavior Therapy, 10*(4), 11–23.

Ialongo, N. S., Horn, W. F., Pascoe, J. M., Greenberg, G., Packard, T., Lopez, M., Wagner, A., & Puttler, L. (1993). The effects of a multimodal intervention with attention-deficit hyperactivity disorder children: A 9-month followup. *Journal of the American Academy of Child and Adolescent Psychiatry, 32*(1), 182–189.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1992). Cognitive problem-solving skills training and parent management training in the treatment of antisocial behavior in children. *Journal of Consulting and Clinical Psychology, 60*(5), 733–747.

Klein, N. C., Alexander, J. F., & Parsons, B. V. (1977). Impact of family systems intervention on recidivism and sibling delinquency: A model of primary prevention and program evaluation. *Journal of Consulting and Clinical Psychology, 45*(3), 469–474.

Knapp, P. A., & Deluty, R. H. (1989). Relative effectiveness of two behavioral parent training programs. *Journal of Consulting and Clinical Psychology, 18*, 314–322.

Kosterman, R., Hawkins, J. D., Haggerty, K. P., Spoth, R., & Redmond, C. (1996). *Preparing for the drug free years: Session-specific effects of a universal parent training intervention with rural families.* Unpublished manuscript.

Kosterman, R., Hawkins, J. D., Haggerty, K. P., Spoth, R., and Redmond, C. Preparing for the drug free years: Effects on videotaped family interactions. *Journal of Community Psychology, 25*(4), 337–352.

Kumpfer, K. L., & DeMarsh, J. P. (1987). *Prevention services for children of substance-abusing parents.* Unpublished manuscript, Social Research Institute, Graduate School of Social Work, University of Utah.

Kumpfer, K. L., Turner, C. W., & Palmer, S. (1991). *YCOSA Black parenting project: Third and fourth year evaluation report.* Unpublished manuscript, Department of Health Education, University of Utah.

Long, P., Forehand, R., Wierson, M., & Morgan, A. (1994). Does parent training with young noncompliant children have long-term effects? *Behaviour Research and Therapy, 32,* 101–107.

Lutzker, J. R., & Rice, J. M. (1987). Using recidivism data to evaluate Project 12-Ways: An ecobehavioral approach to the treatment and prevention of child abuse and neglect. *Journal of Family Violence, 2*(4), 283–290.

Lutzker, J. R., Wesch, D., & Rice, J. M. (1984). A review of Project 12-Ways: An ecobehavioral approach to the treatment and prevention of child abuse and neglect. *Advances in Behaviour Research and Therapy, 6,* 63–73.

Mann, B. J., Borduin, C. M., Henggeler, S. W., & Blaske, D. M. (1990). An investigation of systemic conceptualizations of parent-child coalitions and symptom change. *Journal of Consulting and Clinical Psychology, 58*(3), 336–344.

McMahon, R. J., Forehand, R., & Griest, D. L. (1981). Effects of knowledge of social learning principles on enhancing treatment outcome and generalization in a parent training program. *Journal of Consulting and Clinical Psychology, 49*(4), 526–532.

McPherson, S. J., McDonald, L. F., & Ryer, C. W. (1983). Intensive counseling with families of juvenile offenders. *Juvenile & Family Court Journal, 34,* 27–33.

Myers, H. F., Alvy, K. T., Richardson, M., Arrington, A., Marigna, M., Huff, R., Main, M., & Newcomb, M. *The Effective Black Parenting program: A control research study with inner-city Black families.* Unpublished manuscript, Center for Improvement of Child Caring, Studio City, CA.

Patterson, G. R. (1974). Retraining of aggressive boys by their parents: Review of the literature and followup evaluation. *Canadian Psychiatric Association Journal, 19,* 142–161.

Patterson, G. R. (1975). Multiple evaluations of a parent-training program. In T. Thompson (Ed.), *Applications of Behavior Modification* (pp. 299–322). New York: Academic Press.

Rogers, T. R., Forehand, R., Griest, D. L., Wells, K. C., & McMahon, R. J. (1981). Socioeconomic status: Effects on parent and child behaviors and treatment outcome of parent training. *Journal of Clinical Child Psychology, 10*(2), 98–101.

Santisteban, D. A., Coatsworth, J. D., Perez-Vidal, A., Mitrani, V., Jean-Gilles, M., & Szapocznik, J. (1997). Brief structural/strategic family therapy with African American and Hispanic high risk youth. *Journal of Community Psychology, 25*(5), 453–471.

Santisteban, D. A., Szapocznik, J., Perez-Vidal, A., Kurtines, W. M., Murray, E. J., & LaPerriere, A. (1996). Efficacy of interventions for engaging youth/families into treatment and some variables that may contribute to differential effectiveness. *Journal of Family Psychology, 10*(1), 35–44.

Spoth, R. (in press). Family-focused preventive intervention research: A pragmatic perspective on issues and future directions. In R. Ashery (Ed.), *Prevention through family interventions* (National Institute on Drug Abuse [NIDA] Research Monograph). Rockville, MD: NIDA.

Spoth, R., & Redmond C. (1996). A theory-based parent competency model of protective parenting processes incorporating intervention attendance effects. *Family Relations, 45*, 139–147.

Spoth, R., Redmond, C., Hockaday, C., & Yoo, S. (1997). Protective factors and young adolescent tendency to abstain from alcohol use: A model using two waves of intervention study data. *American Journal of Community Psychology, 24*(6), 749–770.

Spoth, R., Redmond, C., & Shin, C. (in press). Direct and indirect latent parenting outcomes of two universal family-focused preventive interventions: Extending a public-health-oriented research base. *Journal of Consulting and Clinical Psychology.*

Spoth, R., Redmond, C., Shin, C., & Huck, S. (in press). A protective process model of parent-child affective quality and child mastery effects on oppositional behaviors: A test and replication. *Journal of School Psychology.*

Spoth, R., Redmond, C., Haggerty, K., & Ward, T. (1995). A controlled parenting skills outcome study examining individual difference and attendance effects. *Journal of Marriage and the Family, 57*, 449–464.

Spoth, R., Reyes, M. L., & Redmond, C. (1997). *Assessing a public health approach to delay onset and progression of adolescent substance use: Latent transition analysis of longitudinal family preventive intervention outcomes.* Unpublished manuscript.

Spoth, R., Yoo, S., Kahn, J. H., & Redmond C. (1996). A model of the effects of protective parent and peer factors on young adolescent alcohol refusal skills. *Journal of Primary Prevention, 16*(4), 373–394.

Springer, J. F., Phillips, J. L., Phillips, L., Cannady, L. P., & Kerst-Harris, E. (1992). CODA: A creative therapy program for children in families affected by abuse of

alcohol or other drugs [OSAP special issue]. *Journal of Community Psychology*, pp. 55–74.

Szapocznik, J., Murray, E., Scopetta, M., Hervis, O., Rio, A., Cohen, R., Rivas-Vazquez, A., Posada, V., & Kurtines, W. (1989). Structural family versus psychodynamic child therapy for problematic Hispanic boys. *Journal of Consulting and Clinical Psychology, 57*(5), 571–578.

Szapocznik, J., Rio, A., Perez-Vidal, A., Kurtines, W., Hervis, O., & Santisteban, D. (1986). Bicultural effectiveness training (BET): An experimental test of an intervention modality for families experiencing intergenerational/intercultural conflict. *Hispanic Journal of Behavioral Sciences, 8*(4), 303–330.

Szapocznik, J., Santisteban, D., Rio, A., Perez-Vidal, A., Santisteban, D., & Kurtines, W. M. (1989). Family effectiveness training: An intervention to prevent drug abuse and problem behaviors in Hispanic adolescents. *Hispanic Journal of Behavioral Sciences, 11*(1), 4–27.

Thompson, R. W., Grow, C. R., Ruma, P. R., Daly, D. L., & Burke, R. V. (1993). Parent education: Evaluation of a practical parenting program with middle- and low-income families. *Family Relations, 42*(1), 21–25.

Tremblay, R. E., McCord, J., Boileau, H., Charlebois, P., Gagnon, C., Le Blanc, M., & Larivee, S. (1991). Can disruptive boys be helped to become competent? *Psychiatry, 54*, 148–161.

Tremblay, R. E., Pagani-Kurtz, L., Masse, L. C., Vitaro, F., & Pihl, R. O. (1995). A bimodal preventive intervention for disruptive kindergarten boys: Its impact through mid-adolescence. *Journal of Consulting and Clinical Psychology, 63*, 560–568.

Wahler, R. G., Cartor, P. G., Fleischman, J., & Lambert, W. (1993). The impact of synthesis teaching and parent training with mothers of conduct-disordered children. *Journal of Abnormal Child Psychology, 21*(4), 425–440.

Walton, E., Fraser, M. W., Lewis, R. E., Pecora, P. J., & Walton, W. K. (1993). In-home family-focused reunification: An experimental study. *Child Welfare, 72*(5), 473–487.

Webster-Stratton, C. (1984). Randomized trial of two parent-training programs for families with conduct-disordered children. *Journal of Consulting and Clinical Psychology, 52*(4), 666–678.

Webster-Stratton, C. (1990a). Enhancing the effectiveness of self-administered videotape parent training for families with conduct-problem children. *Journal of Abnormal Child Psychology, 18*(5), 479–492.

Webster-Stratton, C. (1990b). Long-term followup of families with young conduct-problem children: From preschool to grade school. *Journal of Clinical Child Psychology, 19*(2), 144–149.

Webster-Stratton, C. (1994). Advancing videotape parent training: A comparison study. *Journal of Consulting and Clinical Psychology, 62*(3), 583–593.

Webster-Stratton, C., Kolpacoff, M., & Hollinsworth, T. (1988). Self-administered videotape therapy for families with conduct-problem children: Comparison with two cost-effective treatments and a control group. *Journal of Consulting and Clinical Psychology, 56*(4), 558–566.

Webster-Stratton, C., Kolpacoff, M., & Hollinsworth, T. (1989). The long-term effectiveness and clinical significance of three cost-effective training programs for families with conduct-problem children. *Journal of Consulting and Clinical Psychology, 57*(4), 550–553.

Wolchik, S. A., West, S. G., Westover, S., Sandler, I. N., Martin, A., Lustig, J., Tein, J. Y., & Fisher, J. (1993). The children of divorce parenting intervention: Outcome evaluation of an empirically based program. *American Journal of Community Psychology, 21*(3), 293–330.

PRACTICE EVIDENCE REVIEWED

The *Communication and Parenting Skills* program. Milwaukee, WI.

The *Creating Lasting Impressions* program of the Council on Prevention and Education: Substances. Louisville, KY.

The *Families and Schools Together* program of Family Service. Madison, WI.

The *Families in Focus* program of Cottage Program International. Salt Lake City, UT.

The *In-Home Care Demonstration Projects* of the Office of Child Abuse Prevention, Department of Social Services, State of California. Sacramento, CA.

The *Intensive Family Preservation Services* of the State of Connecticut. Hartford, CT.

The *Kansas Family Initiative* of the Kansas Department of Social and Rehabilitation Services. Topeka, KS.

The *Nurturing Program for Parents and Children*. Eau Clair, WI.

The *Parenting for Prevention* program of the King County Department of Alcohol and Substance Abuse Services. Seattle, WA.

REFERENCES

Gordon, R. (1983). An operational classification of disease prevention. *Public Health Reports, 98*, 107–109.

Gordon, R. (1987). An operational classification of disease prevention. In J. A. Steinberg, & M. M. Silverman (Eds.), *Preventing mental disorders* (DHHS Publication No. ADM 87-1492, pp. 20–26). Rockville, MD: U.S. Department of Health and Human Services.

Hawkins, J. D., Von Cleve, E., & Catalano, R. F. (1991). Reducing early childhood aggression: Results of a primary prevention program. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(2), 208–217.

Hawkins, J. D., Catalano, R. F., Morrison, D. M., O'Donnell, J., Abbott, R. D., & Day, L. E. (1992). The Seattle social development project: Effects of the first four years on protective factors and problem behaviors. In J. McCord, & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 139–161). New York: Guilford Press.

Henggeler, S. W., Schoenwald, S. K., Pickerel, S. G., Rowland, M. D., & Santos, A. B. (1994). The contribution of treatment outcome research to the reform of children's mental health services: A multisystemic therapy as an example. *The Journal of Mental Health Administration, 21*, 229–239.

Klein, M. A., & Swisher, J. D. (1983). A statewide evaluation of a communication and parenting skills program. *Journal of Drug Education, 13*(1), 73–82.

Loeber, R. (1988). Natural histories of conduct problems, delinquency, and associated substance use: Evidence for developmental progressions. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in Clinical Child Psychology* (pp. 73–124). New York: Plenum Press.

McMahon, R. J., & Forehand, R. (1984). Parent training for the noncompliant child: Treatment outcome, generalization, and adjunctive procedures. In R. F. Dangel & R. A. Polster (Eds.), *Parent training: Foundations of research and practice* (pp. 298–328). New York: Guilford Press.

Nelson, K. E., Landsman, M. J., & Deutelbaum, W. (1990). Three models of family-centered placement prevention services. *Child Welfare, 69*, 3–19.

Szapocznik, J., & Kurtines, W. M. (1980). Acculturation, biculturalism, and adjustment among Cuban Americans. In A. Padilla (Ed.), *Psychological dimensions on the acculturation process: Theory, models, and some new findings* (pp. 139–160). Boulder, CO: Westview Press.

Szapocznik, J., & Kurtines, W. M. (1993). Family psychology and cultural diversity: Opportunities for theory, research, and application. *American Psychologist, 48*, 400–407.

Szapocznik, J., Kurtines, W. M., & Fernandez, T. (1980). Bicultural involvement and adjustment in Hispanic American youths. *International Journal of Intercultural Relations, 4*, 353–366.

Szapocznik, J., Kurtines, W. M., Santisteban, D. A., Pantin, H., Scopetta, M., Mancilla, Y., Ainsenberg, A., McIntosh, S., Perez-Vidal, A., & Coatsworth, J. D. (1996). The evolution of a structural ecosystems theory for working with Hispanic fami-

lies in culturally pluralistic contexts. In J. Garcia, & M. C. Zea (Eds.), *Handbook of Latino psychology.* Needham Heights, MA: Allyn & Bacon Publishers.

Szapocznik, J., Rio, A., Perez-Vidal, A., Kurtines, W., Hervis, O., & Santisteban, D. (1986). Bicultural effectiveness training (BET): An experimental test of an intervention modality for families experiencing intergenerational/intercultural conflict. *Hispanic Journal of Behavioral Sciences, 8*(4), 303–330.

Szapocznik, J., Santisteban, D., Kurtines, W. M., Perez-Vidal, A., & Hervis, O. E. (1984). Bicultural effectiveness training: A treatment intervention for enhancing intercultural adjustment. *Hispanic Journal of Behavioral Sciences, 6,* 317–344.

Szapocznik, J., Santisteban, D., Rio, A., Perez-Vidal, A., & Kurtines, W. M. (1986). Family effectiveness training for Hispanic families: Strategic structural systems intervention for the prevention of drug abuse. In H. P. Lefley, & P. B. Pedersen (Eds.), *Cross cultural training for mental health professionals.* Springfield, IL: Charles C. Thomas.

Szapocznik, J., Santisteban, D., Rio, A., Perez-Vidal, A., Santisteban, D., & Kurtines, W. M. (1989). Family effectiveness training: An intervention to prevent drug abuse and problem behaviors in Hispanic adolescents. *Hispanic Journal of Behavioral Sciences, 11*(1), 4–27.

4 Program Development and Delivery of Family-Centered Prevention Approaches

CHAPTER 1:
Substance Abuse Problems and the Status of the American Family

CHAPTER 2:
Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse

CHAPTER 3:
Analysis of Evidence and Recommendations for Practice

CHAPTER 4:
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4 Program Development and Delivery of Family-Centered Prevention Approaches

This chapter focuses on the basic steps of an implementation effort—assessment, planning, delivery, and evaluation—as applied to family-centered interventions. Relevant research and practice findings are highlighted to illustrate challenges faced by practitioners during program implementation. Table 4-1, in the following section, lists the most significant tasks necessary during each stage of implementation, as discussed throughout this chapter. The information presented here is useful for practitioners irrespective of the stage of the family intervention in which they are working. In addition to providing general guidance, the chapter sheds light on pertinent issues that arise throughout the various phases of the interventions.

KEY CONSIDERATIONS FOR PROGRAM DEVELOPMENT

During the planning stages of family-centered prevention programs, practitioners can be aided by considering the following observations, which underlie much of the information presented in this guideline.

Children vary in their levels of risk for substance use. Many conditions interact over time that help to establish risk and protective factors (described in chapter 2) that make children more likely or less likely to experiment with substance abuse. Therefore, prevention approaches should be selected according to the level of risk within the families being targeted. By categorizing preventive measures as universal, selective, and indicated measures (levels which are defined in chapter 1 and used to group interventions in chapter 3), specific approaches can be targeted to families at various levels of risk, as follows:

- Families that are not yet known to exhibit any risk factors would receive universal preventive measures.
- Families that belong to subgroups at above average risk levels would receive selective preventive measures.
- Families with children specifically known to have above average levels of risk would be targeted for indicated preventive measures.

The extent to which prevention efforts are focused on families at these risk levels is a critical planning issue for family-centered prevention interventions.

A review of the etiological and research literature addressing family-centered prevention approaches indicates some consensus about certain key findings for developing interventions. Although the following findings require further research, they can be used as a starting point for project development (Hawkins, Arthur, & Catalano, 1994; Kosterman, Hawkins, Spoth, Haggerty, & Zhu, 1997; Kumpfer & Turner, 1990–91; Loeber, 1988; McMahon, Forehand, & Griest, 1981; Spoth, Redmond, Haggerty, & Ward, 1995; Spoth, Redmond, Hockaday, & Yoo, 1997; Spoth, Redmond, Khan, & Shin, in press-a, in press-b; Yoshikawa, 1994):

1. *Focus on families with young school-aged children.* When possible, prevention efforts for families work best with young children, before negative behaviors and family problems become entrenched.
2. *Reduce exposure to risks.* Interventions can assist families in preventing the onset or reducing the impact of antisocial behavior and substance abuse by preventing or reducing exposure to risks for these problems.
3. *Enhance protective factors.* Interventions can also help families to promote prosocial behavior in their children by enhancing protective mechanisms that prevent, modify, or ameliorate an individual's exposure to risks.
4. *Choose strategies that are developmentally and gender appropriate.* To achieve maximum benefits, prevention interventions should be carefully chosen according to the developmental stages and gender of the children to whom they are directed. Important outcomes can be reinforced by appropriately revisiting interventions through several developmental stages.
5. *Develop interventions in multiple contexts and settings.* Because families function in and are influenced by multiple settings and environments, the needs of children and families should be addressed in as many contexts as possible, including schools, cultures, religious institutions, neighborhoods, and communities.
6. *Address multiple risk and protective factors simultaneously.* The most effective interventions are those that address not only multiple settings, but also multiple risk factors and protective mechanisms (e.g., reducing domestic conflict and children's antisocial behavior and improving parenting skills and school performance).

7. *Build on families' strengths and encourage their leadership in the process of growth.* Practitioners need to teach their skills to families so they can use this expertise to reach their goals. A family's capacity to identify and solve problems should also be supported by building on its strengths and preserving its integrity, including language and culture.
8. *Recognize that families are directly affected by the level of resources, supports, and values of the communities in which they live.* Family life is affected by what happens at work sites, social service agencies, schools, religious institutions, and businesses in the community. The ability of a family to balance differing community expectations and attitudes about work, culture, language, and socioeconomic status has a profound effect on the degree and type of risk factors its members may be experiencing. Families also need ready access to varying resources and support systems.

TABLE 4-1: Specific Tasks and Activities During Program Development

Step in Program Development	Tasks	Activities
Step 1: Assessment	Develop a family and community profile of risk and protective factors.	Gather information on demographics and other social indicators.
		Gather descriptive information (surveys, interviews, meetings).
		Include formal and informal sources.
	Define the problem.	Compare assessment information with risk and protective factors.
	Choose target family population and prevention approach(es).	Determine where problem has the greatest impact on families.
		Assess interests, needs, concerns, and issues of families; assess their acceptance of potential approach(es).
	Assess characteristics of target families that will affect their participation.	Assess extent of support and resources from community partners.
		Understand and respond to family cultures and values.
		Understand and respond to parental attitudes and beliefs.
	Establish a process for involving families and community partners.	(See above activities.)

TABLE 4-1: Specific Tasks and Activities During Program Development (continued)

Step in Program Development	Tasks	Activities
Step 2: Planning	Plan partnerships with parents and community collaborators.	Identify barriers to recruitment of families.
		Identify barriers to participation:
		1. Lack of awareness of benefits.
		2. Cultural barriers.
		3. Support for basic needs.
		4. Negative views of approaches.
		5. Work-site barriers.
		6. Characteristics and settings.
	Address the needs of the targeted children.	Fit intervention to age, gender, and developmental stage of children from participating target families.
Step 3: Delivery	Hire and support staff.	Develop staff hiring criteria (e.g., expertise, training, interpersonal skills).
		Develop hiring criteria specifically for facilitators and therapists.
		Train facilitators.
		Provide staff support (e.g., team building, facilitator meetings).
	Deliver the intervention in a partner relationship with parents.	Involve parents in delivery of the intervention.
		Encourage dialog between parents and facilitators.
		Use parent "graduates" of the program in leadership roles.
	Develop strategies to monitor and retain participants.	Establish and publicize incentives for participation.
		Monitor participant response and reasons for not participating.
		Maintain referral network for basic support.

TABLE 4-1: Specific Tasks and Activities During Program Development (continued)

Step in Program Development	Tasks	Activities
Step 4: Evaluation	Consult with evaluation experts.	Consider options and choose the most appropriate evaluation.
	Involve participants, staff, and other community stakeholders in the evaluation process.	Offer opportunities to participate in the evaluation design.
	Consider a variety of methods and measures to evaluate outcomes.	Choose evaluation methods and measures that accommodate the activities of the intervention and the budget.
		Develop unambiguous definitions of what is to be measured and explain to staff.
	Identify data sources and develop procedures for collecting data.	Identify such sources as assessments, client attendance, and feedback.
		Ensure similar recording of data among different facilitators/therapists.
		Determine scope and design needed to achieve evaluation objectives and outcomes.
		Document significant improvements in outcomes.
	Consider cost factors.	Outline cost of activities to determine barriers to recruitment and participation.
		Determine length of evaluation.

THE ASSESSMENT STAGE

The initial stages of any program development effort include a process of information gathering and analysis. In the assessment stage of family-centered prevention programs, family and community risk and protective factors that point to the need for an intervention must be identified, as well as the community resources and assets available to support this intervention. The assessment stage ultimately results in a *product* that defines the substance abuse problem to be addressed, the target population, and the intervention approach; and it results in a *process* that can be used to

foster community involvement and support for development and delivery of the intervention.

The desired *product* outcomes of the assessment include demographic and anecdotal data that profile the community and its families, organized by evident risk and protective factors. A description of the child and adolescent substance abuse problem to be addressed is another product outcome of the assessment. A group of target families who would be most affected by the problem should be identified, as well as a prevention approach likely to meet their needs. The assessment should also result in specific information about characteristics of the target families that are likely to influence their participation in the intervention. Finally, community partners who will help develop and carry out the intervention should be identified.

The desired *process* outcomes of the assessment include participation of a broad variety of community organizations and groups in development of the product outcomes listed above. Target families, including children and adolescents, should help identify community and family needs and strengths and gather and assess the information obtained for the product outcomes.

Collect Family and Community Data and Organize by Risk and Protective Factors

For most communities, the prevention of substance abuse among adolescents is a significant concern. To select the most appropriate family-centered approach for a community, it is critical to identify existing problems and needs that increase the risk of adolescent substance abuse, and to identify community assets or strengths that protect against these risks by preventing, ameliorating, or reducing them. When data are organized around risk and protective factors, program developers can highlight the community and family characteristics that are the most important predeterminants of substance abuse.

The assessment process typically is comprised of two levels of data collection. First, statistical and descriptive data on families and communities is organized in the risk and protective factors framework to define the substance abuse problem, determine which target populations would benefit most from a prevention intervention, and choose the approach that will best meet the needs of this population. Second, data are collected specific to the target families to identify characteristics that will inhibit or enhance their participation.

Table 4-2 presents some suggested data that practitioners can gather to develop a profile of their communities and families. Prevention planners should supplement the available statistical demographic information by seeking the opinions and ideas

of a wide variety of people who live in the community. This can be done through telephone interviews, focus groups, written surveys, meetings, and personal interviews. Regardless of the method chosen, it is essential to include families who are likely to participate in different types of approaches, including representatives of various socioeconomic strata, cultures, languages, and neighborhoods. Further, since children and adolescents are the primary target population for each of the approaches presented in this guideline, it is especially important to include them in the data gathering and analytical processes.

TABLE 4-2: Data Used for Developing Community and Family Profiles

Type of Data	Suggested Examples
Statistical Information About Families	Economic status of families, including those living in poverty (whether receiving public assistance or working).
	Number and rate of families living in public or substandard housing and number who are homeless.
	Number and rate of single-parent and two-parent families, by income level.
	Number and rate of mothers in the work force, by income level.
	Information on family preservation, including rates of child abuse and neglect, out-of-home placement of children, and percentage of families in the child welfare system who are preserved or reunited as a result of services.
	Number of substance-abusing parents.
Statistical Information About Children and Adolescents	Number and rate of children who are abused and neglected.
	Physical and mental health status of children, including number and rate of infant mortality deaths and numbers with low birth weight, developmental delay, learning disabilities, and emotional or behavioral problems.
	Rate of suicide among children and adolescents.
	Educational status and problems of children and adolescents, including school drop-out rates as well as rates of those proceeding to higher education or training.
	Violence and crime rates, including number of juvenile delinquents and homicides among youth.
	Numbers and rates of substance-abusing children and adolescents.
	Numbers and rates of unemployed teenagers and young adults.

TABLE 4-2: Data Used for Developing Community and Family Profiles (continued)

Type of Data	Suggested Examples
Descriptive Information About Communities	The infrastructure of support for families in the community: • Supportive resources available for families as well as for whom and under what conditions they are available. • Needs of families for whom there are no resources. • Practices of education, housing, business, the judicial system, welfare, and other systems that help or hinder families in nurturing their children. Family-centered substance abuse prevention approaches and interventions: • Those currently being implemented in the community, families receiving interventions, and conditions under which services are available (i.e., whether for all families, only high-risk families, or families in certain neighborhoods or housing areas). • Unavailable or insufficiently available (yet necessary) resources and interventions. • Organizations, groups, and institutions that have the potential to become partners with program developers in addressing a family-centered approach to prevent adolescent substance abuse.

NOTE: Whenever possible, these statistics should be gathered according to culture and ethnicity as well as geographic section or neighborhood of the community.

Identifying Community Resources

In many cases, community resources to support families can be found outside of the more obvious formal and traditional sources such as schools, child welfare agencies, or mainline service organizations with a "substance abuse prevention" or "family" label. Examples are the following:

- Neighborhood leaders and informal networks.
- Religious organizations and churches.
- Community businesses.
- Cultural groups.
- Neighborhood drop-in programs.
- Child care and Head Start programs.
- Community centers.
- Literacy programs.

In addition, it is important to identify more formal resources that offer family-centered programs, including parent training, in-home support services, and family therapy. These resources could include the following:

- School-based programs that offer parent training or education about substance abuse prevention.
- Child welfare agencies providing in-home support services to prevent separation of families or specialized foster parent training for children with special needs.
- Juvenile court programs that offer parent training or family therapy.
- Universities, community colleges, and health clinics that provide special clinical therapeutic services, parent training programs, or special demonstration or research programs.

Table 4-3 illustrates possible ways to relate demographic information about the community to the risk and protective factors described in chapter 2. The relationships shown in this table are provided only as examples. Practitioners may find it difficult to identify demographic indicators for certain risk factors, such as those relating to family behavior, management, and parenting practices, or to assess the availability and adequacy of various protective resources. It is particularly helpful to hold community meetings and interviews to determine how families assess and respond to relevant problems, where they feel successful, and where they do not.

Define the Problem

Once the assessment of the community's risk and protective factors is completed, practitioners can work with community partners to analyze the information collected. The purpose of this analysis is to identify the most prominent substance abuse problems among children and adolescents in the community and the risk and protective factors that are most clearly associated with these problems.

Substance abuse problems are often hidden or silent. Their extent may not be readily visible to the community, even when statistical and descriptive data are available. The risk and protective factors outlined in chapter 2 are valuable in determining whether there could be substance abuse in a community.

TABLE 4-3: Community and Family Data Organized by Risk and Protective Factors

	Community and Family Indicators	
Social Conditions	**Risk Factors (i.e., Problems)**	**Protective Factors (i.e., Strengths)**
Economic Status of Families	Number and rate of families living in poverty.	Number and rate of families living in poverty who have successfully raised children to be productive adults. Number and rate of parents who have achieved economic self-sufficiency. Availability of community programs to assist parents in achieving economic self-sufficiency.
Neighborhood Organization	Violence and crime rates, including rates of juvenile delinquency and homicide among youth. Rate of suicide among children and adolescents.	Number of programs in high-risk communities that work with children and adolescents. Counseling resources available for children and adolescents. Number of neighborhoods that have banded together to make improvements. Availability of child care resources. Presence of housing opportunities for low-income families.

TABLE 4-3: Community and Family Data Organized by Risk and Protective Factors (continued)

Community and Family Indicators

Social Conditions	Risk Factors (i.e., Problems)	Protective Factors (i.e., Strengths)
Social Behavior of Children and Adolescents	Numbers and rates of children and adolescents with diagnosed conduct and other problem behaviors. Violence and crime rates, including juvenile delinquency. Number and rate of children living in poverty. Number and rate of unemployment among young adults.	Availability of therapy resources for children and families. Availability of juvenile court rehabilitation resources. Availability of alternative school programs and meaningful vocational education opportunities. Number and rate of low-income children enrolled in programs for high achievers, gifted/talented programs.
Family Management and Parenting Practices	Number and rate of teenage parents. Number and rate of working mothers.	Parent and family skills training programs available to all families and to high-risk families. Number of home visitation programs and other resources for new or young parents. Availability and accessibility of parent self-help groups.
Family Behavior Concerning Substance Abuse	Number and rate of adult alcohol and drug abusers. Number and rate of adolescent substance abusers (alcohol, tobacco, illicit drugs).	Availability of substance abuse prevention programs for families. Availability of treatment programs for parents and children. Community laws and norms regarding adolescents' access to and abuse of substances.
Physical Maltreatment of Children	Rates of child abuse and out-of-home placement.	Availability and adequacy of family preservation programs. Percentage of children available for adoption who are adopted. Presence of child abuse prevention programs in the community.
Failure to Achieve in School	Number and rate of school dropouts. Number and rate of students who fail required achievement tests or grades. Number and rate of runaway and homeless youth.	Availability of special education services, tutoring, counseling, etc., for children and adolescents. Availability of alternative education opportunities. Availability of shelters and services for runaway and homeless youth.

TABLE 4-3: Community and Family Data Organized by Risk and Protective Factors (continued)

Community and Family Indicators		
Social Conditions	**Risk Factors (i.e., Problems)**	**Protective Factors (i.e., Strengths)**
Parental Monitoring	Number and rate of working mothers. Number and rate of parents who participate in school events for parents, including conferences. Number and rate of children in supervised afterschool programs. Number and rate of children who are at home alone after school, by age. Physical and mental health status of children, including those with developmental delay, learning disabilities, and emotional or behavioral problems.	Availability of afterschool care for children of working parents. Flexibility of hours in school and other community programs. Adequacy and safety of public transportation systems for adolescents.
Family Bonding		Low-cost opportunities in communities for various family activities. Availability of family support programs for all families and for high-risk families.

NOTE: Wherever possible, information on these indicators should be gathered according to culture and ethnicity as well as geographic or neighborhood distribution.

It is likely that several critical problems will be identified during the assessment phase. Priorities must therefore be established to determine which problems should be addressed first. A number of criteria can be used to determine these priorities, depending on the seriousness of the situation and the resources available (including the involvement of community partners). Thus, program developers initially may want to address an easier problem to build community support around a successful undertaking. In other circumstances, they may want to plan a more complex, multiple-problem strategy that will take full advantage of the resources and partners already in place. In all cases, the community should be solidly behind the criteria and the approach adopted.

Community mapping is an important tool for analyzing the scope of community problems. In the book *Building Communities From the Inside Out*, Kretzmann and McKnight (1993) describe a process for mapping community needs and assets. In a "Neighborhood Needs Map," they identify areas with negative community factors such as unemployment, gangs, child abuse, and lead poisoning. Each community can fill in the demographics and anecdotal information pertaining to these areas. In a "Community Assets Map," they delineate areas of community strengths, such as parks, cultural groups, businesses, and religious institutions. Community planners

often overlook these neighborhood assets and their support for children and families.

Examples of the Neighborhood Needs Map and the Community Assets Map are shown in figure 4-1. Program developers can transfer their findings from the community assessment to these maps to determine where they have sufficient information and knowledge about their community and where they need to look further.

When analyzing information about community partners, it is also helpful to note the similarities and differences in agency and organizational missions, as well as varying perceptions about the community and its needs.

Select a Target Population and a Prevention Approach

Practitioners, working with community and family collaborators, must decide how best to address an identified problem by selecting a target group of families to be served and a prevention approach that will meet their needs. In making these decisions, it is helpful to consider whether the problem has the greatest impact on all families in the community, or only on certain groups of families that are at above average risk for adolescent onset of substance abuse. The interests, needs, concerns, and issues expressed by families during the assessment process in response to various options should be taken into consideration. For example, some may hold the opinion that the problem should be treated as something everyone faces, thereby avoiding the labeling of families. High-risk families may either welcome or be resistant to extra support. The strengths families bring to addressing the problem may come to light during the assessment, as well as the extent to which community resources and collaborating partners are available to help with identifying target families, designing the intervention, and providing collateral support services and funding.

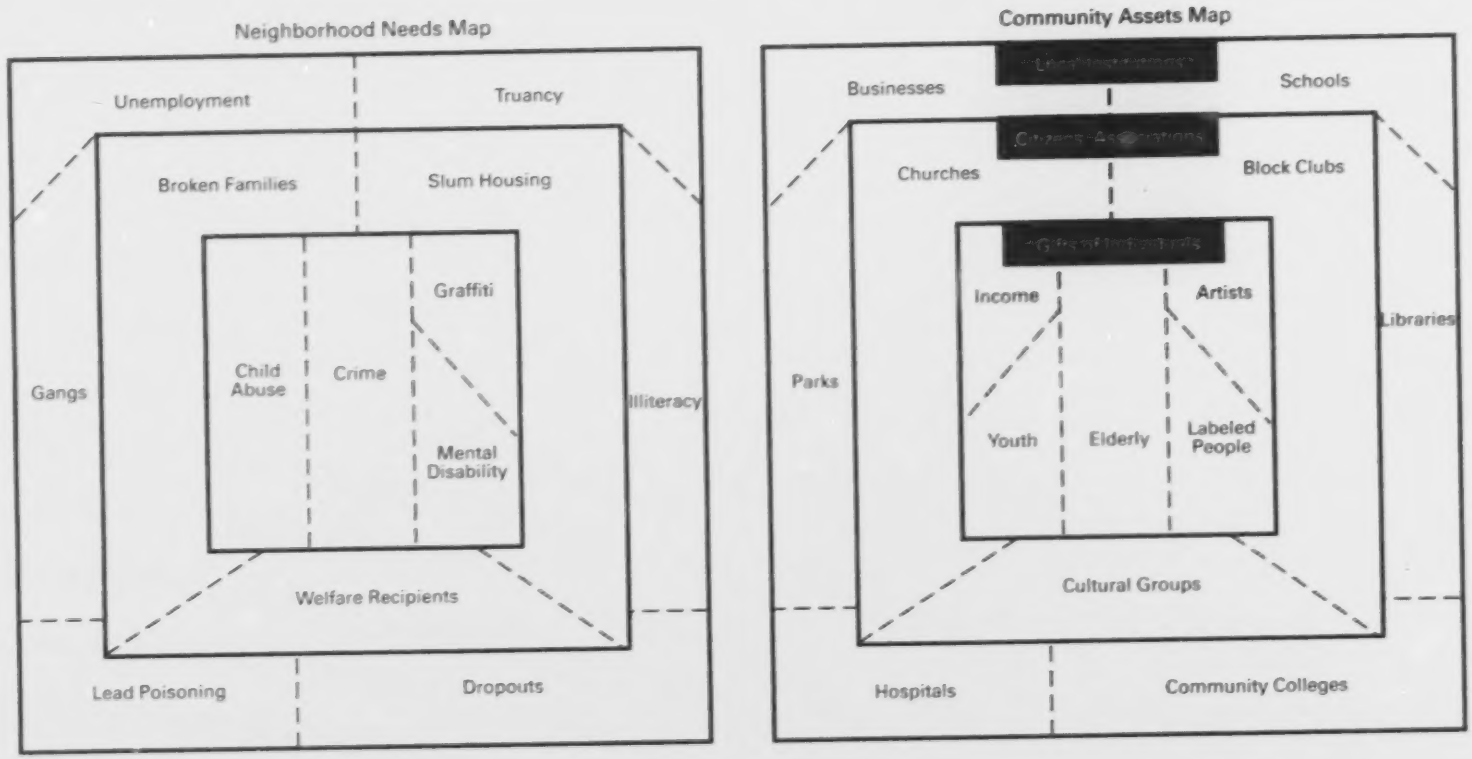
Targeted Intervention Measures

Of the approaches reviewed in chapter 3, only one, family and parent training, encompasses universal, selective, and indicated preventive measures. The interventions grouped under this approach may address all families (universal measures), subpopulations of families with above average risk (selective measures), and/or specific families who have children with known, above-average risks (indicated measures). The other approaches, family in-home support and family therapy, are discussed in this guideline only for families with known risks (indicated preventive measures).

Assess Characteristics of Target Families That Affect Participation

Research on the etiology of adolescent substance abuse and family-centered prevention interventions has demonstrated that broad demographic and anecdotal data are not sufficient for selecting a target population and planning an effective intervention. Rather, certain characteristics of target families need to be further explored to encourage their participation in the intervention.

FIGURE 4-1: MAPPING NEIGHBORHOOD NEEDS AND COMMUNITY ASSETS



Source: Kretzmann, J. P., & McKnight, J. L. (1993). *Building communities from the inside out: A path toward finding and mobilizing a community's assets.* Evanston, IL: Northwestern University, Center for Urban Affairs and Policy Research. Used with permission.

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It is widely believed that engaging families in family-centered interventions is extremely difficult. Moreover, many practitioners believe that the greater the number of risk factors exhibited by families, the more difficult it is to elicit participation. However, it is apparent from the evidence presented in chapter 3, as well as from other etiological and intervention research, that it is possible to recruit and retain at-risk families in prevention programs, especially when planners take sufficient time to assess two particularly important areas: family cultural values, styles, and languages; and parents' beliefs about the risks to their children and their capacity to protect them.

Researchers and practitioners have used a variety of methods to involve potential participants in gathering valuable information about their cultures, values, and beliefs. Such strategies include focus groups, interviews with community leaders, community meetings with parents and adolescents, and surveys of the communities or neighborhoods in which families live (Spoth & Redmond, 1993; Spoth & Molgaard, 1993; Spoth, Ball, et al., 1996). In one program, registration forms for a work-site intervention were designed to gather basic information about families (Millman, 1992).

If resources are limited, practitioners can benefit from the relationships that have already been developed between the staff of community organizations and the families with whom they work. Examples of these organizations include health clinics, Head Start and other child development and child care programs, and visiting nurse and in-home services programs. The staff of these programs can be engaged as partners to implement some of the strategies for collecting information about parents' needs and aspirations. Senior citizens' groups and parent-teacher associations can be asked to help with the interviewing process as well.

Family Cultures and Values

Families from different cultures vary tremendously in their child-rearing and parenting values. Planners should define these values for the families and cultures they wish to serve, rather than operate from generalizations. Planners can begin by talking with local or neighborhood leaders, parents, grandparents, and teenagers who are from the same culture as the participants. The planners of the intervention can discuss what they are planning with these individuals and ask for suggestions on the best ways to learn about the culture.

Targeted Audiences

Most of the studies reviewed in chapter 3 target White families of mixed socioeconomic status. It is unknown whether these studies will apply in interventions with low-income families or families from other cultures, except for those studies that included these types of families in sufficient numbers in the original research.

There is a tremendous need to learn more about helping families from various cultures and adapting approaches that have been successful in meeting differing needs. The following paragraphs give examples of studies and practitioner-trainer expe-

riences that demonstrate how the results of careful cultural assessment of target families can affect decisions about intervention planning.

Some cultures value the child and family as part of a total community that includes parents, other relatives, friends, and neighbors. These cultures underplay the values of individualism, individual achievement, or competitiveness. Interventions that overemphasize teaching parents how to promote the individual identities of their children may fail in families from these cultures because they counter the esteemed norms of the cultural community. For example, many Native American families want their children to learn patterns of communication and problem solving that fit with their tribal history, family and community patterns of relationships, and tradition of honoring elders. For these families, interventions should focus on enhancing family functioning to promote the cohesiveness of the tribal group (Indian Health Service, 1995; Northwest Indian Child Welfare Association, 1993).

One study of bicultural effectiveness training for Cuban-American families demonstrated the importance of addressing intergenerational conflict as a critical part of family therapy. Teaching families how to identify and resolve these culturally based conflicts between older parents and grandparents and younger adolescents helped families regain their familial strengths to support adolescents (Szapocznik, Santisteban, Kurtines, Perez-Vidal, & Hervis, 1983).

In some cultures, parents' capacities to teach their children to cope with racial prejudice can affect the youths' ability to adopt prosocial behaviors. By understanding the environment in which the family exists, practitioners can "market" the intervention according to the family's needs (Santisteban et al., 1995).

Observers of African-American families in various settings have noted the protective factors afforded by strong kinship bonds; a willingness to open households to others, especially children; and a strong religious orientation (Boyd-Franklin, 1990). Practitioners can look for these strengths during family and community assessments and design interventions that build on them.

Techniques for disciplining children among various cultural groups can influence the ways in which families respond to specific types of interventions. In one intervention that served African-American families (Myers et al., 1990), the authors found it necessary to design specific discipline strategies that translated "traditional Black discipline" into "modern Black discipline," focusing on "appealing to children's minds, not behinds."

Parental Attitudes and Beliefs

Planners can benefit from an assessment of parents' beliefs about the susceptibility of their children to substance abuse and their ability to prevent it. These beliefs may

be associated with the socioeconomic status of the target population and may affect the ability of the program to meet this population's needs. Parents differ in their beliefs about what can be accomplished to protect their children through parenting practices and how this goal should be achieved. For example, many parents may not be aware of the prevalence and severity of the problem of adolescent substance abuse and the extent to which they can influence their adolescents' behavior in this regard (Spoth & Conroy, 1993). Characteristics such as income and education of parents (demographics that can be obtained during assessment) are particularly important clues for planners in understanding the beliefs and attitudes of the identified target population (Spoth & Redmond, 1995; Spoth et al., in press-a).

Spoth and his colleagues (Spoth & Conroy, 1993; Spoth et al., 1997; Spoth, Redmond, Yoo, & Dodge, 1993) conducted studies on protective parenting behaviors among families across the socioeconomic spectrum. Factors including parents' income, educational attainment, and gender can influence whether and how they seek formal sources of help, such as counseling and skills training programs, and informal sources of help, such as reading articles and books about raising children and discussing parenting issues with friends and relatives. Additionally, in a prospective study of predictors of actual enrollment in family skills training programs, education level emerged as a relatively strong predictor of enrollment (Spoth et al., in press-a, in press-b).

Studies of rural families indicated that these parents believed they could prevent adolescent substance use through their parenting behavior and tended to be fairly active in their parenting (Spoth & Conroy, 1993; Spoth et al., 1993). These parents, however, tended not to seek formal support to prevent substance abuse by their children, even though community demographics indicated the existence of a significant adolescent substance abuse problem. When these families sought help, it was through personal and informal contacts rather than professional sources or parent or family skills training (Spoth & Conroy, 1993).

Practitioners should recognize that some parents do not consider engaging in parenting skills training an appropriate or valid parenting practice. These parents may never want to enroll in a parenting program, no matter how it is presented. It is important to find out who these parents are. Then, efforts can be made to acquaint them with the severity of adolescent problem behaviors so that they can appreciate the need for delivery of an intervention (Spoth & Conroy, 1993).

Establish a Process for Involving Families and Community Partners

The key product of assessment, as outlined in the previous paragraphs, consists of a number of steps geared toward gathering and analyzing information about the scope of the problem to be addressed, the target population, and the best approach to meet

the needs of the community. Woven into each of these steps is the concept of involving community organizations and target populations. While the *product* outcome of assessment consists of a quantifiable end result (demographic profiles, a description of the problem, and the approach selected to address it), the *process* outcome results in the participation of the community in the development of that result.

If successful, the process outcome of assessment will accomplish the following:

- Inclusion of the primary target population in the collection and analysis of information about the problem and the population it primarily affects.
- Identification of the common goals and missions of community organizations and agencies.
- Participation of community partners in the analysis and definition of the community's substance abuse problems.
- Assessment of family cultural values and parents' attitudes and beliefs about the substance abuse problem and their own capacities to affect it.

Addressing Intrapopulation Differences

Beyond addressing variations among cultures, practitioners should recognize that families within target populations are not homogeneous. A recently published study (Spoth, Ball, et al., 1996) illustrates how families from a seemingly homogeneous population sharing a common culture and geography (White, rural, Midwestern) differed by familial interest and readiness to participate in family-centered programs. The authors conducted a survey of the parents, requesting them to rank the importance of program design features, such as program duration, meeting length, program focus and format, and facilitator background. (See Spoth and Redmond [1993] for a description of the consumer research methods that can be used for this type of study.) When the responses were analyzed, three clusters of families emerged. Preferences for specific program features varied among these clusters.

The first cluster of parents expressed interest in an intervention involving minimal effort and showed a very limited preference for specific program content. The researchers concluded that it might be difficult to persuade these families to participate and that they might require simple, frequently repeated, and well-recognized messages about the intervention, including references to intervention features of importance to them. A second cluster of parents indicated interest in an intervention requiring more effort, but focused on substance abuse prevention. A third cluster was interested in an intervention requiring moderate effort and focusing on family communication skills. Had the authors not conducted this survey, they might have assumed that these families, who shared basic sociodemographic characteristics of a relatively homogeneous population, all would have responded similarly to the offered intervention.

The assessment processes described are essential in laying the foundation for community endorsement and commitment of resources and ongoing sharing of responsibility for planning and implementation. Family participation in the intervention is

also critical. Practitioners should attend both to the processes and the products of assessment to achieve desired results from family-centered prevention interventions.

THE PLANNING STAGE

The desired outcome of the planning phase is an intervention design based on the results of the assessment that will meet the needs of the target families. The primary tools for developing this design are the information that was gathered and decisions made during the assessment process, including the following:

- The data gathered on families and the community, organized by risk and protective factors.
- A definition of the substance abuse problem to be addressed.
- The target families most affected by the problem.
- The most appropriate approach to meet the needs of the target families.
- The characteristics of the target families that will influence their participation.
- The community partners who can help with the project.

The program plan should include goals and objectives that describe the action or change expected and the extent of change anticipated, as well as the structure and activities of the intervention. Activities should be chosen to meet the stated goals and objectives and should be carefully described to provide a protocol for intervention delivery. To assist in completing these tasks, planners often establish a planning group that includes target families and is representative of the community. This planning group can help to develop the community collaboration and resources needed to support the project and can provide a forum for sharing the intervention plans with the community at large and with potential participants.

Etiological and intervention research on family-centered interventions has focused specifically on two critical areas of planning (which are discussed in the following sections): (1) planning partnerships with parents and community collaborators and (2) planning for recruitment and participation.

Develop Partnerships With Parents

Traditionally, program developers, trainers, social workers, and psychologists have determined families' needs and what is best for them based on their own experiences and observations or on a particular theory about families. With this approach, however, families rarely have an opportunity to express their ideas about their own needs or to collaborate in the development of a project in which they can be involved. More important, however, in such situations, parents do not participate in decisions about their own children, resulting in a loss of a wealth of knowledge and expertise, and a missed opportunity to build the intervention on these strengths.

As there is now a greater appreciation of this issue by researchers and practitioners, new research findings and practices are exploring ways to share expertise with families so that they can become partners in the planning and evaluation of interventions. The following strategies are particularly important for achieving optimal effectiveness of an intervention:

- Building opportunities for parents, rather than imposing requirements.
- Listening and responding to parents' goals and expectations, rather than defining them.
- Increasing parents' feelings of self-efficacy and self-control.
- Designing program options to accommodate possible differences within family populations that appear homogeneous.
- Designing interventions that build on and integrate families' social and support networks.

Research on parents' readiness to change has emphasized the significance of forming partnerships with parents in developing prevention interventions. Parents who are open to self-development through a family-centered intervention tend to be those who have already benefitted from professional help. The stronger their sense that they can effect change for the better, the more likely they are to be ready to change (Spoth et al., 1995). Socioeconomic status also affects parental self-efficacy: In particular, the more highly educated parents are, the more likely they are to feel that they can bring about change, but such feeling is tempered by a corresponding increase in perceived susceptibility to problems (Spoth et al., 1993).

Develop Relationships With Community Partners

In designing family-centered interventions, the development of collaborative relationships with other community service providers and family support groups can provide a safety net of services to meet the basic needs of participating families. Continued planning for such collaboration during the design of an intervention will help providers understand the underlying concepts and principles of a family-centered intervention and contribute to an informed consensus on shared goals.

Weiss (1995) noted that the effectiveness of family-centered programs depends on "the availability and quality of other resources that can support and enrich family life, such as child care and after school programs, recreational activities, and cultural events; services that can meet the needs and concerns of children and families, including housing, jobs, and health care; and *the capacity of programs to connect with these resources*" (italics added).

Partnership Planning Strategies

Examples of partnership planning strategies can be found in two of the studies reviewed in chapter 3: Felner et al. (1994) is an example of a work-site parent training intervention, and the Families in Focus practice case is an example of a family skills training intervention.

Developing Collaborative Relationships

Some examples of interventions summarized in chapter 3 that developed collaborative relationships with other organizations include the research studies of Felner et al. (1994), Catalano, Haggerty, Gainey, Hoppe, & the Social Development Research Group (1995), Henggeler et al. (1986), Mann, Borduin, Henggeler, & Blaske (1990), Spoth et al. (1995), Spoth et al. (in press-a, in press-b), as well as the practice cases of the Kansas Family Initiative, Creating Lasting Impressions, and Families in Focus. In addition, several family-centered prevention projects have employed the Cooperative Extension Network in every State.

Facilitating Partnerships

A community action agency in Iowa, while planning a family development program, realized that to be effective it had to enlarge its effort to include "facilitating partnerships" within the larger network of community agencies. Over a period of several years, this agency established a 47-member, cross-disciplinary "community academy." The academy of agencies increased its assessment of the status of families to a five-county area (Deutelbaum, 1992).

Effective community collaboration integrates the perspectives of multiple individuals and organizations who have an interest in substance abuse problems in the community. Collaborating parties participate in finding solutions to those problems. Involvement of these stakeholders leads to a program design that includes community resources and concerns. Figure 4-1, Mapping Neighborhood Needs and Community Assets, can be used to identify and expand the community partnership network. In completing each section of the map, it is helpful to focus first on those organizations that have the most positive and mutually collaborative relationships—and then add respected organizations that have this potential. These organizations can form a core collaborating group to assist with the development and financing of the project.

Forming viable partnerships with one or more institutions or agencies in other domains, such as schools, religious institutions, work sites, cultures, or neighborhoods, cannot be accomplished by patching together separate projects with individual funding streams under one general heading and calling it a "multifocused strategy." Rather, it is essential that intervention activities be unified under one set of goals and outcomes and one planning structure. Although this effort is time consuming, the process results in shared ownership of the vision and goals of the project, consensus on outcomes, and more effective use of available resources, including funding.

Identify Barriers to Recruitment and Participation

A critical aspect of the planning stage is identifying potential barriers to recruitment and participation of the targeted population. These barriers may have to do with the ways in which an intervention is presented to the target population or with real or perceived obstacles preventing their participation.

Barriers to Recruitment

Multifocused Prevention Strategies

Some examples of studies described in chapter 3 that illustrate a multifocused strategy are the research studies of Catalano et al. (1995), Hawkins et al. (1992), and Henggeler et al. (1986) and the practice cases Creating Lasting Impressions, the Parenting for Prevention program, and Families and Schools Together (FAST).

The way in which program developers first present and describe a family-centered intervention can influence parents' interest in the program and their willingness to participate in it. For example, although planners may want to provide indicated prevention measures for specific families who are identified as at risk, they may find that widening the focus of the program to include families who are from at-risk populations may make participation more appealing. Broadening the focus of a program in this way may help to avoid having participants feel as though they are being labeled "bad" parents (Hawkins et al., 1987). In other cases, some parents may resent being asked to participate in an event labeled "parent training" but may respond positively to a "child management skills program" (Lochman & Wells, 1996). The following paragraphs describe additional examples demonstrating how planners overcame barriers to recruitment.

The parent training program of Felner et al. (1994), reviewed in chapter 3, was conducted at a large corporate work site and was offered to all employees. Recruitment was carried out through several mechanisms, the most successful of which included word of mouth, invitations from friends, and a registration booth.

In Fast Track, another family-centered parent training intervention, staff conducted telephone interviews and home visits with parents to learn more about their interests, circumstances, and views before suggesting participation in an intervention. This recruitment approach also supported a partnership with families and strengthened the interrelationship between family and school settings (McMahon, Slough, & Conduct Problems Prevention Research Group, 1996).

A group of family therapy researchers found that resistance to participation in family therapy interventions had to be addressed during the very first contact with the family, rather than waiting for the first therapy session (Szapocznik et al., 1988; Santisteban et al., 1996). Resistance to participation was so strongly intertwined with the reasons why the family needed therapy that the therapist had to address the resistance immediately, during initial engagement with the family.

Barriers to Participation

Research has demonstrated a number of real or perceived barriers that prevent participation by parents in interventions. Identification of these barriers during the planning stage allows them to be addressed in the design and budget for the intervention. As discussed in the section on assessment, practitioners can assess barriers

by conducting focus groups, surveys, or interviews during either the assessment or planning stages. Some of the common barriers are discussed below.

Lack of Awareness of Benefits of an Intervention. Spoth and Redmond (1995) tested a model of motivational factors influencing parents' inclination to enroll in a parenting intervention in the rural Midwest. They found the perceived benefits of the intervention (perceptions directly influenced by the perceived severity of the problems and the perceived susceptibility of adolescents to the problems) were the strongest predictors of the parents' inclination to enroll.

Cultural Barriers. Many families do not trust or respond to projects that are designed and led by persons outside of or unfamiliar with their culture. These families may be concerned about being negatively singled out and may believe the project's values do not reflect those of their culture. In addition, because of issues associated with immigration and acculturation and the distress that often accompanies these experiences, many immigrant families need special assistance to rebuild and develop social support systems and overcome language barriers.

Addressing Cultural Barriers

Examples of studies reviewed in chapter 3 that address cultural barriers are those of Aktan, Kumpfer, & Turner (1996), Kumpfer, Turner, & Palmer (1991), Myers et al. (1990), Santisteban et al. (1995), and Szapocznik et al. (1989).

Cultural barriers to participation can be overcome by consulting and involving leaders in the community who are from the target families' cultures in the design, interpretation, and presentation of the intervention. These individuals can include teachers, businesspeople, nurses, and grandparents. In addition, the intervention must be closely allied with the most accessible resources to support the service needs of families, especially those resources available within local neighborhoods and communities.

Lack of Support for Basic Needs. Many families cannot participate in intervention programs because they must attend to crises with housing, medical care, finances, employment, or other basic needs. In addition, it is common to find considerable mistrust and hostility among families that have been involved with multiple systems such as child welfare, juvenile justice, and public assistance programs. Intervention planners are increasingly realizing that to involve these families they must first, or simultaneously, assist them with these crises. The prevention approach of in-home support services is particularly effective in addressing these barriers.

Addressing Basic Needs

Examples of studies summarized in chapter 3 that address support for basic needs are that of Catalano et al. (1995) as well as the practice cases Creating Lasting Impressions, Families in Focus, and the FAST program.

Additionally, collaborative efforts with community service providers can be developed as part of the intervention. Referral systems that emphasize one point of coordination and service management avoid pulling families in many directions because

of competing requirements. Providing support for basic needs helps strengthen and reinforce the family's self-control and self-efficacy.

Negative Views of Prevention Approaches. Many families find any intervention to be intrusive, particularly if their behavior is being assessed (especially by videotaping); if they perceive interference with their parental rights, responsibilities, and authority (i.e., someone interfering with the way their children think and act); or if their participation is or seems mandated rather than voluntary. Family therapy, for example, is often viewed as "mysterious" and out of the parents' control. Others misunderstand terms in parent training such as "contracting," which may appear to promote equality between children and parents and thus reduce parental authority. In addition, some parents think they can handle problems effectively without programs (Spoth, Redmond, et al., 1996).

One study designed to engage adolescent substance abusers and families in treatment found that adolescents' unwillingness to participate could be a major barrier to successful treatment. It also found that fathers were less interested than mothers in attending program sessions and that mothers' decisions about whether to participate were influenced by the fathers' interest. From this study, it appears that any family member who refuses to participate can influence the entire family's participation (Szapocznik et al., 1988). Another study (Families and Schools Together) found that the assessment mechanisms asked inappropriate questions, forced parents to compare their children with other children, or to view their children negatively.

Addressing Negative Views

Examples of studies described in chapter 3 that address negative views toward interventions are those of Gordon, Arbuthnot, Gustafson, & McGreen (1988), Kumpfer and DeMarsh (1987), Spoth et al. (1995), and the practice study on the FAST program.

Work-Site Barriers. Barriers may become apparent when interventions are offered at parents' work sites. For example, scheduling an intervention at lunchtime may not work because many parents use lunch hours to attend to other priorities. Further, employers may not allow long lunch hours or flexible schedules to accommodate employee attendance at the intervention (Millman, 1992). (See the study of Felner et al. [1994], a work-site intervention described in chapter 3.)

Characteristics and Settings of the Intervention. At a minimum, interventions should be carried out in accessible, comfortable settings located in the communities of the participating families. Appropriate settings include schools, churches, community centers, homes, and housing projects. Familiarity with the needs and preferences of the family populations served allows facilitators to provide the intervention in settings and schedules comfortable and convenient for participants.

Intervention Characteristics and Settings

Interventions discussed in chapter 3 that specifically address characteristics and settings of interventions are the research studies of Catalano et al. (1995), Felner et al. (1994), Gordon et al. (1988), Mann et al. (1990), McPherson, McDonald, & Ryer (1983), and Myers et al. (1990); and the practice cases Creating Lasting Impressions and the FAST program.

Even when interventions are offered at times most convenient for target families as a whole, studies show that substantial numbers of potential participants may still be unable to attend. Consequently, practitioners should consider giving participants multiple scheduling options, thus accommodating the greatest number of families.

Among the program characteristics that commonly affect participant attendance and retention are the following:

- Duration of the program.
- Length, time, frequency, and proximity of meetings.
- Access to transportation, child care, and meals.
- Program focus, format, and endorsements.
- Expertise and background of facilitators.

If these factors do not match the desires, needs, and expectations of the targeted families, these families may not participate or may drop out of the intervention. Although these issues involve implementation steps, they must be addressed during the planning stage to ensure that sponsoring organizations can provide the necessary financial resources and facilities to meet the needs of the identified target population.

Ensure Appropriateness of the Intervention to the Needs of Targeted Children

To achieve maximum benefits, an intervention must be appropriate for the age, gender, and developmental stage of the children for whom it is intended. For example, research demonstrates that traditional family therapy does not work well with young children, who are unable to communicate in this setting on an equal footing with parents and older children. Several interventions described in chapter 3 appropriately include young children through family play therapy—i.e., teaching parents how to improve their parenting skills through supervised participation and interaction with their children while they are playing (e.g., Forehand & Long, 1988; McMahon et al., 1981; Springer, Phillips, Phillips, Cannady, & Kerst-Harris, 1992).

DELIVERY OF THE INTERVENTION

If the issues identified during the planning stage have been attended to properly, all major decisions concerning the intervention will have been made by the time planners reach the delivery stage. The task is then to carry out the intervention as planned. Effective implementation, however, requires careful attention to the details of the intervention as it unfolds and a capacity to adjust elements of the delivery in response to participant and facilitator feedback. Delivery issues for family-centered interventions include hiring, support, and training of staff and facilitators, provid-

ing support in the best way to parents as partners in delivering of the intervention, and implementing strategies to monitor and retain participants in the program.

Weigh Staffing Considerations

There is widespread agreement among researchers and practitioners that effective staffing is crucial to the success of a family-centered intervention. Every aspect of staffing deserves close attention.

Hiring Criteria for Staff

The following three requirements of staff are equally important to the success of the project:

1. *Expertise and training*—For example, facilitators or therapists should be trained in child and family development, substance abuse prevention, the interrelationships of risk mechanisms and protective factors, and adult education and group facilitation skills.
2. *Effective interpersonal skills*—These include flexibility, positive attitudes about children, and a capacity to be comfortable with and respectful of all kinds of people.
3. *Commitment*—Individuals should believe in the efficacy of and have a commitment to the intervention project.

Hiring and training qualified receptionists and secretaries should be a high priority because they often have first contact with parents. Since their interpersonal skills and commitment to the project are critical, they will need training to ensure that they understand the project and have the skills to be supportive of families.

It is often difficult to ascertain the extent of expertise, interpersonal skills, and commitment of a potential hire, even after careful review of paper qualifications, interviews, and recommendations. Resources that can assist practitioners in the hiring process are the publications *Effective Hiring Practices: A Look at Personality, Attitudes, and Skills* (Chalifour, 1993) and *Helping Children Affected by Substance Abuse: A Manual for the Head Start Management Team* (Head Start Bureau, 1994).

Criteria for Facilitators and Therapists

Research has demonstrated that parents have very specific expectations of intervention facilitators (those who interact directly with them in carrying out the program), whether they are social workers providing in-home support services, psychologists providing family therapy, or trainers. These expectations are not always obvious. They are often closely related to parents' views of the efficacy of prevention efforts and their views of themselves. Depending on desired outcomes, parents have definite preferences concerning facilitator's knowledge, education, and resources. As discussed throughout this chapter, the views and preferences of the target families are

important considerations in the planning of an intervention (Spoth & Redmond, 1993, 1996; Spoth, Ball, et al., 1996).

Whenever funds allow, using cotrainers or leaders allows various leadership styles, levels of expertise, and male-female training pairs to be offered to participants. Coleaders have the advantage of playing different roles during training, such as "the observer" and "the leader" (Lochman & Wells, 1996).

Addressing Facilitator Preparation

Many of the intervention studies described in chapter 3 provide descriptions of techniques for preparing facilitators (whether as trainers or therapists), particularly in cases where the facilitators were graduate students (Barton, Alexander, Waldron, Turner, & Warburton, 1985; Wolchik et al., 1993), volunteers (Creating Lasting Impressions; Families in Focus; Kansas Family Initiative), or parent graduates (FAST; Guerney & Wolfgang, 1981).

Thorough training of facilitator teams enhances the effective delivery of an intervention. Kumpfer, Molgaard, & Spoth (1996) found that it is more effective to conduct facilitator training in two sessions over at least 2 days. The first session can include a basic presentation of the materials, while the second session can be used to give trainers structured opportunities to use the materials in role-playing exercises.

Support for Staff

Working with stressed or troubled families places an enormous emotional burden on staff members, who need tremendous support. This support is especially important if the intervention is large in scope or involves hiring paraprofessionals and parents. Providing staff with a variety of support systems enhances their ability to perform effectively and helps avoid burnout. The following methods can be used to facilitate staff support in the implementation of an intervention.

Team Building. This approach includes strategies for developing team approaches to program development and delivery, such as defining and understanding each others' roles and responsibilities, managing conflict, making decisions, and communicating effectively.

Facilitator Meetings. These meetings provide opportunities for facilitators to support each other by discussing problems and exchanging ideas and experiences.

Staff Support Networks. These personal referral resources for staff (particularly for staff paraprofessionals and parents) help with personal and family problems that may emerge in the staff's lives while they are participating in leadership of the intervention.

Participant Referral Network. A collaboration and referral network for facilitators responds to crises and special needs of participating families (see the sections Collect

Family and Community Data and Organize by Risk and Protective Factors and Develop Relationships With Community Partners in this chapter).

Deliver the Intervention in a Partnering Relationship With Parents

Continuing to share expertise and decisionmaking responsibility with parents during the implementation stage helps them to become full partners in the delivery of the intervention, rather than just recipients of a service. The extent to which the partner relationship with parents is maintained depends heavily on the facilitators' understanding of this concept and commitment to making it a reality. Although some professionals have begun to provide interventions that enter into a partnering relationship with parents, this type of relationship may be inconsistent with the training of many professionals in social work, therapy, psychology, and teaching. Most professionals in these fields have been trained to view the persons they serve as clients or patients whose care they manage and for whom they have "the answer" or solution. To overcome these biases and develop self-awareness about behavior, the concept of partnership must be frequently revisited in staff training, supervision, and communication. Several strategies to assist in these processes are described in the following paragraphs.

Active Involvement of Parents

Consistently involving parents in all aspects of intervention delivery reinforces partnership roles. Parents can serve as language or cultural translators or help with logistics and food. Some parents can be hired as support staff or paraprofessional trainers. Finally, participation by parents in some of the intervention's parent-child interactions, which draw upon parents' knowledge of their children to evoke change, can be viewed as in-service training. This encourages parents to view themselves as partners in the training process, rather than just recipients (McMahon et al., 1996).

Dialog Between Parents and Facilitators

The delivery style of facilitators has a significant impact on the partnership with parents. Facilitators can involve parents through several interactive processes (Cochran & Woolever, 1983; Hawkins et al., 1987; Lochman & Wells, 1996; Prinz & Miller, 1996). These include the following:

- Asking parents about their parenting styles, the strategies they are currently using, and which ones they would like to improve.
- Building on what parents are already doing that has elements of success, rather than pointing out failures.
- Avoiding the suggestion or implication that parents must do things "your way" and stop doing them "their way"; giving alternatives and encouraging them to try out suggestions and report on the results.

- Helping parents feel valued and competent by highlighting their progress, validating their efforts, and celebrating their successes—e.g., for persisting in their efforts or for achieving mastery of skills and knowledge.
- Paying attention to adjustments in delivery of the intervention that will increase parental control over their own behavior and their confidence with the children.

Use of Parent "Graduates" From the Program

Parents who have successfully completed the intervention (parent "graduates") can assist practitioners in recruitment and in contacting dropouts. They can also serve as consultants in the planning and design stages of the project. Parents who are committed to the intervention can be a strong motivating force and may prove to be the most effective communicators with new parents and the most helpful in supporting retention of these new parents in the project.

Develop Strategies To Monitor and Retain Participants

Even with effective groundwork laid for recruiting families and ensuring their ongoing participation, as described in the assessment and planning sections of this chapter, retaining families in a project can prove difficult. Several strategies, described in the following paragraphs, have been shown to be particularly helpful in encouraging parents to continue participation and in determining the reasons why parents may drop out.

Incentives for Participation

Addressing Partnering With Parents

The FAST program, described in chapter 3, is one intervention that uses parent graduates. Other interventions discussed in chapter 3 that address the issue of partnering with parents are those of McPherson et al. (1983) and the Families in Focus program.

Providing incentives for parents who participate in the program can be an effective way to recruit and retain them. Examples of incentives include the following:

- Free transportation and child care.
- Snacks or meals served during intervention activities.
- Free coupons for food or video rentals.
- "Graduation" gifts.
- Parties or family outings.
- Access to clothing or food banks.
- Referral services for legal, medical, housing, and financial aid.

Cash incentives may be useful in some instances. Alternatively, if resources are available, program staff may prefer to provide goods or coupons to parents who come to the initial session, with a bonus incentive of goods for completion of all sessions (Kumpfer et al., 1996). Information about the incentives offered should be included in recruitment literature, advertisements, and announcements, giving full credit to

those who are donating services or collaborating with the program. This also will strengthen community ownership and involvement with the project.

Addressing Nonparticipation

Despite the best planning efforts, some participants will drop out for a number of reasons. These include unexpected crises, forgetting, feelings of incompetence and hostility, inadequacies of the facilitator, or disappointment with the direction of the project (Office for Substance Abuse Prevention, 1991). As information is gathered about participants missing a session or dropping out, facilitators and supervisors should meet to review what they have learned and to consider adjustments in the content and delivery of the program.

The most effective way to understand why participants drop out or attend infrequently is to talk with them individually, preferably in person but, if necessary, by phone. Participants who miss a session should be contacted and told that they were missed. The content of the last session they attended should be discussed to determine whether something happened to disappoint or offend them. An attempt should be made to determine, in a supportive and nonintrusive manner (perhaps using a parent cofacilitator), whether a crisis has occurred or whether the missing participant needs additional support to attend. Even if parents are not willing to share their reasons for missing sessions, the caring interest and interaction may draw them back to the next session.

Addressing Incentives

Some interventions discussed in chapter 3 that include incentives are those of Catalano et al. (1995), Felner et al. (1994), and Myers et al. (1990) and the Parenting for Prevention and FAST programs.

Referral Network for Basic Support

A referral network for basic support will emerge from the community collaboration work conducted during the planning phase. This network should include referrals for housing, food, job placement, and other services that are not directly available through the intervention. Although this may seem like a straightforward task, the referral process is likely to be the first system to break down unless careful attention is paid to its development and maintenance. Community services are often fragmented, and agencies may have barriers built into their funding requirements that prevent them from working effectively together. In addition, service agencies may compete for families, refuse to serve certain families, or quarrel among themselves.

To maintain an effective referral service, the organization sponsoring the intervention must be thoroughly acquainted with the services provided by each agency; the people who receive

Participant Retention Strategies

Examples of techniques for retaining participants can be found in Berry (1992), Catalano et al. (1995), Felner et al. (1994), Kumpfer and DeMarsh (1987), and the Creating Lasting Impressions program. These studies are discussed in chapter 3.

these services; the rules of eligibility and participation for each agency; their hours of operation and their locations (including how to get clients there by public transportation); and feedback from families about how effectively these services meet their needs. The following steps can help develop and maintain an effective referral network:

- Develop or obtain a community referral directory with pertinent information about each agency and provide it to each staff person. Make the directories available for participants at a resource table and make announcements about them during training.
- Survey parents about the effectiveness of service agencies, especially those that are most commonly used. Seek out groups of parents who use them, such as parents from schools or churches in low-income communities. Find out what is needed to make the most effective use of the referral service.
- Train all facilitators in the referral system and the services available.
- Follow up on all referrals to make sure they are completed by parents, to ascertain whether services were provided, and to uncover any problems.
- Meet regularly with agencies in the referral system to exchange mutual feedback about issues and problems and to develop more effective ways of serving the intervention participants.

Although not all parents will need referral support, relevant services should be in place so that support can be provided as the need of individual families arises.

THE EVALUATION STAGE

Two basic types of evaluations can be considered by practitioners, depending on the purpose of the evaluation and how the results will be used. For each type of evaluation, a range of evaluation activities can be used to determine whether the project effectively helped the target families. A *process evaluation* reviews the way in which project activities are carried out. Practitioners use process evaluation during the implementation stage of the intervention to monitor progress and determine whether the project is being run in a manner likely to achieve specified goals and objectives. A *summative* or *outcome evaluation* examines the degree to which the interventions achieved the specified goals and objectives. Sponsoring organizations often require summative evaluations to determine whether to obtain further financial support to continue or expand the interventions. In addition, such evaluation is required to justify continuation of a project or show that the project achieved specified outcomes.

Practitioners of family-centered prevention programs may believe that they do not have the resources, time, or appropriate expertise to conduct evaluation activities. Others may believe that evaluations are useless or fear that the results will be harmful in some way to the sponsoring organization's program. As a result, practitioners

often lose the opportunity to gain objective information about the success of their undertakings. With some careful thought and consultant expertise, however, it is possible to design evaluations that will yield valuable information about implementation of the intervention and attainment of outcomes.

To be most effective, evaluation activities must be planned very early in the program development process, such as during the planning stage. Particular attention should be paid to the following five evaluation activities:

1. Consulting with evaluation experts who have experience in evaluating family-centered projects.
2. Developing data sources available from and procedures appropriate to family-based approaches.
3. Continuing the involvement of participants, staff, and other stakeholders in the evaluation process.
4. Considering a variety of evaluation methods and measures that can be used easily with family-centered projects.
5. Considering cost factors in relationship to beneficial outcomes for families at various degrees of risk.

Each of these activities is discussed in the following sections.

Consult With Evaluation Experts

Many organizations have access to an expert who can be consulted on the planning and design of an evaluation. Universities, colleges, and community college systems often have departments with this expertise, such as those of child and family development, social work, psychology, public health, and social ecology. Depending on the available financial and personnel resources, project staff could hire a faculty member to conduct the entire evaluation or could persuade the institution to allow a graduate student to conduct the evaluation as part of a dissertation. Alternatively, the organization could request in-kind or free evaluation consultation from a qualified collaborating organization in the community.

Several factors should be taken into account when selecting an evaluation consultant. First, to ensure an objective evaluation, the evaluator should be independent of the management and implementation of the program. Otherwise, the project design could be altered by project staff to obtain positive outcomes. Second, the evaluator should have an understanding of and a commitment to critical project concepts, such as creating partnerships with parents and involving community stakeholders in the assessment and planning processes. Third, an evaluator should be willing and able to take costs into account and to design an evaluation that will meet both the needs and the budget of the project. Finally, the evaluator should be willing to participate in project development to understand the project's objectives, anticipated

problems, and staff attitudes and practices. Although the evaluator should remain objective and independent, this person also can provide valuable feedback about aspects of the design and implementation of the program to improve its compatibility with evaluation methodologies.

Develop Appropriate Data Sources and Procedures

Practitioners most often use process evaluation to ensure that a project is implemented as planned. With the information gathered through this process, practitioners can monitor the implementation process as it unfolds and make midcourse corrections for a project that may not be achieving specified goals. *Practitioners must realize, however, that midcourse corrections can interfere with summative or outcomes evaluation results.* The following are data sources for process evaluations of family-centered prevention interventions:

- Assessment strategies.
- Recruitment procedures and success rate.
- Participant attendance at sessions.
- Participant feedback about process and content of sessions.
- Therapist's or facilitator's logs of sessions.
- Feedback from participants who did not complete the program.
- List of collaborating agencies.
- Number of participants served.

For each of these data sources, program developers can review the preceding sections of this chapter to identify questions they wish to answer as the project progresses. Gathering information from these sources can assist in determining the degree to which activities, resources, services, and environment facilitated achievement of the intervention's objectives; the appropriateness of activities for the target families; and the consistency of the project's implementation in comparison with what was planned.

For example, practitioners may want to implement several recruitment strategies and monitor resulting success rates during the initial phase of recruitment. They could then use the most successful strategy to complete the recruitment process.

Consider a Variety of Methods and Measures To Evaluate Outcomes

Many program planners consider just one or two commonly used evaluation methods, such as pretests and posttests, which may not give useful or adequate information about project outcomes. Other evaluation methods, however, can allow program planners to determine whether the project achieved its stated goals and objectives.

Many researchers believe that the ideal evaluation design for determining whether an intervention has achieved its stated outcomes is an experimental or sophisticated quasi-experimental design. These types of evaluation design require the use of con-

trol or comparison groups, methods that are expensive and complicated for many practitioners to carry out with available resources. Furthermore, such designs may place sponsoring organizations in the difficult position of denying services or support to some families who would benefit from them, a practice that may be decried by families who are participating in the planning stage.

It is possible, however, to learn a great deal about the outcomes of an intervention without using these research strategies. Practitioners can use one of two simple methods of evaluation to determine whether the observed outcomes resulted from the intervention. Either of the following methods will be inexpensive and will allow more family participation in the evaluation process than an experimental or quasi-experimental design:

1. Assessment of participants regarding specified family and/or child behaviors before and after intervention delivery.
2. Comparison of the specified behaviors of participants who have completed the program with those of participants who are on a waiting list, often referred to as "wait-list controls."

When carefully and rigorously employing these evaluation methods, practitioners can use one or more of the following measures to assess the progress of participants. The choice of measures to use depends on the specified outcomes and the intervention used. Many of the studies described in chapter 3 used examples of these measures, which researchers tested for reliability and validity:

- Observation of the participants practicing what they learned in everyday settings at home.
- Exercises in which participants demonstrate what they learned in simulated or clinical settings with their children.
- Role-playing activities.
- Third-party observations of the intervention.
- Structured interviews with the parents.

Whenever possible, practitioners should use measures that have proven to be *reliable* and *valid*. Measures that are *reliable* will produce the same result (score) when applied two or more times. For example, if parents are interviewed twice within a week regarding their child's behavior problems, a reliable interview will produce very similar reports about the problems. Measures that are *valid* actually assess what the evaluator wants to measure. Thus, a valid parent interview would assess specific child behavior problems that have been identified as leading to substance use, rather than general child behaviors. For examples of appropriate measures, practitioners can refer to the National Institute on Drug Abuse publications *Diagnostic Source Book on Drug Abuse Research and Treatment* (Rounsaville, Tims, Horton, & Sowder, 1993)

and *Assessing Drug Abuse Among Adolescents and Adults: Standardized Instruments* (Friedman & Granick, 1994).

Involve Participants, Staff, and Other Stakeholders in the Evaluation Process

The evaluation design and process should include opportunities for input from a variety of project stakeholders, including staff, family participants, and community collaborators. The perspectives of these individuals on what can be gained from the intervention should be considered in framing the evaluation. One evaluator calls this the "development-in-context evaluation," in which stakeholders (including participants) design and implement an evaluation specific to the community in which the evaluation is taking place and inclusive of as many different community viewpoints as possible (Lerner, 1995).

Although it may be fairly easy to obtain evaluation input from professionals (e.g., staff and community collaborators), in many cases family participants are reluctant to be part of a research effort. Researchers have documented that family members often decline to participate in a project when it involves evaluation, in part because they are not informed about evaluation methods and purposes. This may result in selective participation (i.e., only those individuals who want to change participate) or a low recruitment or retention rate. Each of these problems can threaten the validity of the project findings (Spoth & Molgaard, 1993; Spoth & Redmond, 1994). Some studies, however, have demonstrated that involving participants in the collection of data about participation decisions can be helpful to the success of the project design.

To overcome these problems, it is important to determine the reasons for a family's reluctance to participate in research and to offer them opportunities to help design it. Program developers can achieve this by working with the project evaluator to hold focus groups with potential participants, during which various types of research methodologies could be presented. The potential participants could provide feedback regarding the feasibility of these methods and the barriers these methods might present to participation.

Consider Cost Factors

Selection and design of an evaluation always involve tradeoffs among costs, results gained from incurring those costs, and outcomes lost by not incurring them. As a rule of thumb, the more rigorous the evaluation, the more it will cost. The amount of evaluation rigor required to demonstrate success varies, however, depending in part on how an intervention is tailored (through the assessment and planning process) to a local site. Practitioners should consider the following tradeoffs between costs and desired outcomes when choosing an evaluation design.

Documentation of Significant Improvements in Outcome

The level of risk factors, needs of the families who are the target of an intervention, and the number of families receiving intervention must be sufficient to allow demonstration of a clear improvement in specified outcomes. Otherwise, it will be difficult for practitioners to demonstrate a change that justifies the costs of the intervention.

Recruitment and Participation

As discussed earlier in this chapter, practitioners may need to conduct surveys or focus groups with the target population to determine population barriers and needs. These activities can be costly, but without adequate recruitment and participation, project implementation may be futile.

Use of Process Data During or After Evaluation

As part of the evaluation design process, the project team must decide how process evaluation data will be used during project implementation. These data—for example, information on participation rates—could be examined periodically during project implementation so changes can be made in intervention delivery to improve participation rates. Alternatively, the data could be examined only after intervention delivery has been completed. As suggested earlier, each of these options has associated costs and benefits that should be carefully considered.

Purpose of the Evaluation

The purpose and cost of an evaluation design will vary depending on whether the evaluation is intended to gain funding for the program (which could require a rigorous evaluation of considerable scope and cost) or to assess aspects of intervention implementation (which could allow an evaluation of more limited scope and cost).

Length of the Evaluation

Before choosing an evaluation design, the project team must decide how long participants will be assessed after the intervention has ended, as well as the costs associated with this decision. For example, the potential outcomes of a family skills training intervention that targets families of children diagnosed with conduct disorder could address changes in family risk and protective factors immediately after the intervention and at 1-year intervals for a designated period afterward or continue the evaluation to determine whether these children engage in substance abuse when they are adolescents. If a long-term evaluation strategy is chosen, practitioners should remember to adopt an appropriate sampling design to be able to make valid inferences after accounting for attrition and other confounding effects.

CONCLUSION

Many practitioners face challenges in their efforts to intervene with families to prevent substance abuse by the children. Despite these difficulties, a growing body of research and practice literature has documented strategies to enhance the chances that prevention efforts will be successful. Key to this success is employing strategies that involve participants in planning and decisionmaking at each stage of development. In this way, the design and implementation of the intervention will be more likely to match their needs, strengths, and expectations. The information and strategies presented in this chapter offer substantial guidance to prevention planners in tailoring a successful intervention.

REFERENCES

Aktan, G. B., Kumpfer, K. L., & Turner, C. W. (1996). Effectiveness of a family skills training program for substance use prevention with inner city African-American families. *Substance Use and Misuse, 31*(2), 157–175.

Barton, C., Alexander, J. F., Waldron, H., Turner, C. W., & Warburton, J. (1985). Generalizing treatment effects of functional family therapy: Three replications. *American Journal of Family Therapy, 13*(3), 16–26.

Berry, M. (1992). An evaluation of family preservation services: Fitting agency services to family needs. *Social Work, 37*(4), 314–321.

Boyd-Franklin, N. (1990). Five key factors in the treatment of black families. In G. W. Saba, B. M. Karrer, & K. V. Hardy (Eds.), *Minorities and family therapy* (pp. 53–69). New York: Haworth.

Catalano, R. F., Haggerty, K. P., Gainey, R. R., Hoppe, M. J., & Social Development Research Group. (1995). *Reducing parental risk factors for children's substance abuse: Preliminary outcomes with opiate-addicted parents.* Unpublished manuscript.

Chalifour, I. (1993). *Effective hiring practices: A look at personality, attitudes, and skills.* Newton, MA: New England Resource Center, Education Development Center.

Cochran, M., & Woolever, F. (1983). Beyond the deficit model: The empowerment of parents with information and informal supports. In I. Sigel, & L. Lagosa (Eds.), *Changing families.* New York: Plenum Press.

The Creating Lasting Impressions program of the Council on Prevention and Education: Substances. Louisville, Kentucky.

Deutelbaum, W. (1992). Family systems and poverty programs. *The Prevention Report.* Iowa City: National Resource Center on Family-Based Services, University of Iowa School of Social Work.

Families and Schools Together (FAST), Family Service. Madison, Wisconsin.

Families in Focus, Cottage Program International. Salt Lake City, Utah.

Felner, R. D., Brand, S., Erwin Mulhall, K., Counter, B., Millman, J. B., & Fried, J. (1994). The parenting partnership: The evaluation of a human service/corporate workplace collaboration for the prevention of substance abuse and mental health problems and the promotion of family and work adjustment. *Journal of Primary Prevention, 15*(2), 123–146.

Forehand, R., & Long, N. (1988). Outpatient treatment of the acting out child: Procedures, long term follow-up data, and clinical problems. *Advances in Behaviour Research and Therapy, 10*, 129–177.

Friedman, A. S., & Granick, S. (Eds.). (1994). *Assessing drug abuse among adolescents and adults: Standardized instruments* (NIH Publication No. 94–3757). Rockville, MD: National Institute on Drug Abuse.

Gordon, D. A., Arbuthnot, J., Gustafson, K. E., & McGreen, P. (1988). Home-based behavioral-system family therapy with disadvantaged juvenile delinquents. *American Journal of Family Therapy, 16*(3), 243–255.

Guerney, L. F., & Wolfgang, G. (1981). Long-range evaluation of effects on foster parents of a foster parent skills training program. *Journal of Clinical Child Psychology, 10*(1), 33–37.

Hawkins, J. D., Arthur, M. W., & Catalano, R. F. (1994). *Preventing substance abuse.* Chicago: University of Chicago.

Hawkins, J. D., Catalano, R. F., Jones, G., & Fine, D. (1987). Delinquency prevention through parent training: Results and issues from work in progress. In J. Q. Wilson, & G. C. Loury (Eds.), *Children to citizens: Families, schools, and delinquency prevention* (Vol. 3). New York: Springer-Verlag.

Hawkins, J. D., Catalano, R. F., Morrison, D. M., O'Donnell, J., Abbott, R. D., & Day, L. E. (1992). The Seattle social development project: Effects of the first four years on protective factors and problem behaviors. In J. McCord, & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 139–161). New York: Guilford Press.

Head Start Bureau. (1994). *Helping children affected by substance abuse: A manual for the Head Start management team.* Rockville, MD: U.S. Department of Health and Human Services, Administration for Children and Families.

Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M., & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology, 22*(1), 132–141.

Indian Health Service. (1995). *Comprehensive health care program for American Indians and Alaska Natives.* Washington, DC: U.S. Department of Health and Human Services.

Kansas Family Initiative, Kansas Department of Social and Rehabilitation Services. Topeka, Kansas.

Kosterman, R., Hawkins, J. D., Spoth, R., Haggerty, K. P., & Zhu, K. (1997). Preparing for the drug free years: Effects on videotaped family interactions. *Journal of Community Psychology, 25*(4), 337–352.

Kretzmann, J. P., & McKnight, J. L. (1993). *Building communities from the inside out: A path toward finding and mobilizing a community's assets.* Evanston, IL: Northwestern University, Center for Urban Affairs and Policy Research.

Kumpfer, K. L., & DeMarsh, J. P. (1987). *Prevention services for children of substance-abusing parents.* Unpublished manuscript, Social Research Institute, Graduate School of Social Work, University of Utah.

Kumpfer, K. L., Molgaard, V., & Spoth, R. (1996). The Strengthening Families program for the prevention of delinquency and drug use in special populations. In R. D. Peters, & R. J. McMahon (Eds.), *Preventing childhood disorders, substance abuse, and delinquency.* Thousand Oaks, CA: Sage.

Kumpfer, K. L., & Turner, C. W. (1990–91). The social ecology model of adolescent substance abuse: Implications for prevention. *International Journal of the Addictions, 25*(4A), 435–463.

Kumpfer, K. L., Turner, C. W., & Palmer, S. (1991) *YCOSA Black Parenting Project: Third and fourth year evaluation report.* Unpublished manuscript, Department of Health Education, University of Utah.

Lerner, R. M. (1995). *America's youth in crisis: Challenges and ppportunities for programs and policies.* Thousand Oaks, CA: Sage.

Lochman, J. E., & Wells, K. C. (1996). A social-cognitive intervention with aggressive children: Prevention effects and contextual implementation issues. In R. J. McMahon, & R. D. Peters (Eds.), *Preventing childhood disorders, substance abuse, and delinquency.* Thousand Oaks, CA: Sage.

Loeber, R. (1988). Natural histories of conduct problems, delinquency, and associated substance use: Evidence for developmental progression. In B. B. Lahey, & A. E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 11). New York: Plenum Publishing Corporation.

Mann, B. J., Borduin, C. M., Henggeler, S. W., & Blaske, D. M. (1990). An investigation of systemic conceptualizations of parent-child coalitions and symptom change. *Journal of Consulting and Clinical Psychology, 58*(3), 336–344.

McMahon, R. J., Forehand, R., & Griest, D. L. (1981). Effects of knowledge of social learning principles on enhancing treatment outcome and generalization in a parent training program. *Journal of Consulting and Clinical Psychology, 49*(4), 526–532.

McMahon, R. J., Slough, N. M., & Conduct Problems Prevention Research Group. (1996). Family based intervention in the Fast Track program. In R. D. Peters, & R. J. McMahon (Eds.), *Preventing childhood disorders, substance abuse, and delinquency.* Thousand Oaks, CA: Sage.

McPherson, S. J., McDonald, L. F., & Ryer, C. W. (1983). Intensive counseling with families of juvenile offenders. *Juvenile & Family Court Journal, 34,* 27–33.

Millman, J. (1992). *Parenting partnership manual.* Chicago: Parent Project, Illinois Department of Alcoholism and Substance Abuse, State of Illinois.

Myers, H. F., Alvy, K. T., Richardson, M., Arrington, A., Marigna, M., Huff, R., Main, M., & Newcomb, M. (1990). *The Effective Black Parenting Program: A control research study with inner-city Black families.* Unpublished manuscript, Center for Improvement of Child Caring, Studio City, CA.

Northwest Indian Child Welfare Association, Inc. (1993). *Honoring the children.* Portland, OR: Author.

Office for Substance Abuse Prevention. (1991). How to get hard-to-reach parents involved in parenting programs. In K. Kumpfer (Ed.), *Parent training is prevention: Preventing alcohol and other drug problems among youth in the family* (DHHS Publication No. ADM 91–1715. Rockville, MD: Author.

Parenting for Prevention, King County Department of Alcohol and Substance Abuse Services. Seattle, WA.

Prinz, R. J., & Miller, G. E. (1996). Parental engagement in interventions for children at risk for conduct disorder. In R. D. Peters, & R. J. McMahon (Eds.), *Preventing childhood disorders, substance abuse, and delinquency.* Thousand Oaks, CA: Sage.

Rounsaville, B. J., Tims, F. M., Horton, A. M., & Sowder, B. J. (Eds.). (1993). *Diagnostic source book on drug abuse research and treatment* (NIH Publication No. 93–3508). Rockville, MD: National Institute on Drug Abuse.

Santisteban, D. A., Coatsworth, J. D., Perez-Vidal, A., Mitrani, V., Jean-Gilles, M., & Szapocznik, J. (1995). *Brief structural/strategic family therapy with African-American and Hispanic high-risk youth.* Unpublished manuscript, Center for Family Studies, Department of Psychiatry and Behavioral Sciences, University of Miami School of Medicine, Miami, FL.

Santisteban, D. A., Szapocznik, J., Perez-Vidal, A., Kurtines, W. M., Murray, E. J., & Laperriere, A. (1996). Efficacy of intervention for engaging youth and families into treatment and some variables that may contribute to differential effectiveness. *Journal of Family Psychology, 10*(1), 35–44.

Spoth, R., Ball, A. B., Klose, A., & Redmond, C. (1996). Illustration of a market segmentation technique using family-focused prevention program preference data. *Health Education Research, 11*(2), 259–267.

Spoth, R., & Conroy, S. (1993). Survey of prevention-relevant beliefs and efforts to enhance parenting skills among rural parents. *Journal of Rural Health, 9*(3), 227–239.

Spoth, R., & Molgaard, V. (1993). Consumer-focused data collection in prevention program evaluation: Rationale and illustrations. *Evaluation and the Health Professions, 16*(3), 278–294.

Spoth, C., & Redmond, C. (1993). Identifying program preferences through conjoint analysis: Illustrative results from a parent sample. *American Journal of Health Promotion, 8*(2), 124–133.

Spoth, C., & Redmond, C. (1994). Effective recruitment of parents into family-focused prevention research: A comparison of two strategies. *Psychology and Health: An International Journal, 9*, 353–370.

Spoth, R., & Redmond, C. (1995). Parent motivation to enroll in parenting skills programs: A model of family context and health belief predictors. *Journal of Family Psychology, 9*(3), 294–310.

Spoth, R., & Redmond C. (1996). A theory-based parent competency model of protective parenting processes incorporating intervention attendance effects. *Family Relations, 45*, 139–147.

Spoth, R., Redmond, C, Yoo, S., & Dodge, K. (1993). Sociodemographic factors and parent beliefs relevant to the prevention of adolescent behavior problems. *Family Perspective, 27*(3), 285–303.

Spoth, R., Redmond, C., Haggerty, K., & Ward, T. (1995). A controlled parenting skills outcome study examining individual difference and attendance effects. *Journal of Marriage and the Family, 57*, 449–464.

Spoth, R., Redmond, C., Hockaday, C., & Shin, C. (1996). Barriers to participation in family skills preventive interventions and their evaluations: A replication and extension. *Family Relations, 45*, 247–254.

Spoth, R., Redmond, C., Hockaday, C., & Yoo, S. (1997). Protective factors and young adolescent tendency to abstain from alcohol use: A model using two waves of intervention study data. *American Journal of Community Psychology, 24*(6), 749–770.

Spoth, R., Redmond, C., Kahn, J., & Shin, C. (in press-a). A prospective validation study of inclination, belief, and family context predictors of family-focused prevention involvement. *Family Process.*

Spoth, R., Redmond, C., Kahn, J., & Shin, C. (in press-b). Direct and indirect latent parenting outcomes of two universal family-focused preventive interventions: Extending a public health-oriented research base. *Journal of Consulting and Clinical Psychology.*

Springer, J. F., Phillips, J. L., Phillips, L., Cannady, L. P., & Kerst-Harris, E. (1992). CODA: A creative therapy program for children in families affected by abuse of alcohol or other drugs. *Journal of Community Psychology,* pp. 55–74 [OSAP Special Issue].

Szapocznik, J., Perez-Vidal, A., Brickman, A., Foote, F. H., Santisteban, D., Hervis, O. E., & Kurtines, W. M. (1988). Engaging adolescent drug abusers and their families into treatment: A Strategic Structural Systems approach. *Journal of Consulting and Clinical Psychology, 56*(4), 552–557.

Szapocznik, J., Santistiban, D., Kurtines, W., Perez-Vidal, A., & Hervis, O. (1983). Bicultural effectiveness training: A treatment intervention for enhancing intercultural adjustment in Cuban-American families. *Hispanic Journal of Behavioral Sciences, 6*(4), 317–344.

Szapocznik, J., Santisteban, D., Rio, A., Perez-Vidal, A., Santisteban, D., & Kurtines, W. M. (1989). Family effectiveness training: An intervention to prevent drug abuse and problem behaviors in Hispanic adolescents. *Hispanic Journal of Behavioral Sciences, 11*(1), 4–27.

Weiss, H. B. (1995). *Raising our future: Families, schools, and communities joining together—A handbook of family support and education programs for parents, educators, community leaders, and policy makers.* Cambridge, MA: Harvard Family Research Project.

Wolchik, S. A., West, S. G., Westover, S., Sandler, I. N., Martin, A., Lustig, J., Tein, J. Y., & Fisher, J. (1993). The children of divorce parenting intervention: Outcome evaluation of an empirically based program. *American Journal of Community Psychology, 21*(3), 293–330.

Yoshikawa, H. (1994). Prevention as cumulative protector: Effects of early family support and education on chronic delinquency and its risks. *Psychological Bulletin, 115*(1), 28–54.

5 | Emerging Areas of Research and Practice

CHAPTER 1:
Substance Abuse Problems and the Status of the American Family

CHAPTER 2:
Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse

CHAPTER 3:
Analysis of Evidence and Recommendations for Practice

CHAPTER 4:
Program Development and Delivery of Family-Centered Prevention Approaches

CHAPTER 5:
Emerging Areas of Research and Practice

Emergence of the Constructs of Resilience and Family Support	**5-4**
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APPENDIXES

5 Emerging Areas of Research and Practice

Practitioners reading this guideline may wonder why certain prevention approaches and strategies that are widely used (and perhaps supported by a strong funding base) are not discussed in chapter 3. Several types of family-centered prevention interventions were excluded from extensive analysis in this guideline because they did not meet specific inclusion criteria of the Prevention Enhancement Protocols System (PEPS), despite their use in prevention practice. Some of these criteria are an ample body of research or practice evidence for review and analysis, soundness of the studies' research design, appropriate age of the intervention subjects, and documentation of process evaluation for prevention practice cases.

While still in the early stages of research, resilience and family support are prominent constructs that have emerged in prevention practice.

Two constructs not previously examined in this guideline are *resilience* and *family support*. They are described as constructs because they are in the early stages of research, even though each has a theoretically based field of practice. This chapter identifies their theoretical bases and describes their status in prevention research and practice. This information is intended to assist practitioners, policymakers, and other decisionmakers in their understanding of these areas. It is hoped that practitioners and researchers will build on this information when implementing prevention interventions and contribute to the knowledge base in these emerging areas.

EMERGENCE OF THE CONSTRUCTS OF RESILIENCE AND FAMILY SUPPORT

Over the past two decades, prevention research has increasingly focused on the importance of the family's role in nurturing prosocial behavior in children and on understanding how prosocial and antisocial behaviors develop. Prevention practitioners most commonly use interventions designed to reduce risk factors and enhance protective factors to help families encourage prosocial behaviors in children. Although there has been considerable research on the significance, hierarchy, and interaction of risk factors, far less research has been conducted on protective factors. Questions that have been left unanswered include the following:

- Why do many children and families achieve positive outcomes despite numerous and severe obstacles?
- Why do these same obstacles prevent other families from reaching positive outcomes?
- What are the qualities and characteristics of family interventions that best help families develop the capacity to act on their own behalf and deal effectively with their environments?
- What are the qualifications, experiences, and skills of practitioners that help families develop these capacities?
- What is the role of social support systems, both formal and informal, in enhancing family and child development?

Studies of resilience and family support have attempted to address these questions. These two constructs have arisen from a number of observations of practitioners and researchers involved in family-centered prevention. For example, there is a need to identify enduring solutions that more effectively use available assets, capacities, and resources of both families and communities. In particular, families have a capacity for growth and development that traditional service systems do not effectively mobilize. Most families can benefit from assistance that anticipates and provides the support children need to meet the challenges of their developmental tasks (rather than assistance that waits until problems emerge). It is also important to understand the interactional influences among the child, the family, and the community environment.

Challenges that remain with regard to these constructs are the delineation of their elements and dimensions and the development of methods to appropriately evaluate interventions based on these working concepts.

The Construct of Resilience

Developing the construct of resilience is complicated by a lack of consensus regarding definition of the term.

Exploring the construct of resilience has been stimulated by empirical observations from several sources, which follow:

- Findings from etiological studies about stress and coping with severe deprivation, especially by survivors of wars and catastrophes (Epstein, 1979; Goldfarb, 1943; Harbison, 1983; Jahoda & Harrison, 1975; Langmeier & Matejcek, 1975; Leavitt & Fox, 1993; Rutter & Quinton, 1984; Spitz, 1945, 1946; Thoits, 1983).
- Findings from early longitudinal studies on children's stressful life course events (Elder, 1974; Elder, Liker, & Jaworski, 1984; Werner, 1989; Werner & Smith, 1982, 1992).
- Related research and practice driven by limited resources to serve large numbers of troubled families and designed to help families improve and enhance their ongoing capacity to solve their own problems, rather than be dependent on others to solve them.

Defining Resilience

Developing the construct of resilience is complicated by a lack of consensus regarding the meaning of the term. It is generally agreed that resilience involves competence or positive, effective coping in response to risk or adversity (Luthar & Cushing, in press). Literature suggests that resilience to adolescent onset of substance abuse may be defined as either of the following capacities of children (Herrenkohl, Herrenkohl, & Egolf, 1994; Luthar, 1991; Luthar & Cushing, in press; Turner, Norman, & Zunz, 1993):

1. The capacity to recover from traumatic life events (e.g., the death of a parent, divorce, sexual abuse, homelessness, or a catastrophic event) and other types of adversity to achieve eventual restoration or improvement of competent functioning.
2. The ability to withstand chronic stress (e.g., extreme poverty, alcoholic parents, chronic illness, or ongoing domestic or neighborhood violence) and to sustain competent functioning despite ongoing adverse life conditions.

Although there is widespread divergence of opinion on how resilience should be measured, resiliency researchers sometimes seek to measure the competency of children by examining their degree of success in meeting important societal expectations and requirements for various types of social conduct. These include school achievement, obeying the law, and successful interactions with peers who have a positive influence (Garmezy, 1993).

Elements of Resilience

Those attempting to describe and develop the construct of resilience have found that the ability to successfully cope with stress and adversity arises from the interaction of several elements in a child's life. These include the following:

- The child's biological makeup and internal characteristics, especially intelligence.
- The child's temperament and internal locus of control or mastery.
- The family and community environments in which the child is raised, especially the extent to which significant nurturing and supportive qualities are present.
- The number, intensity, and duration of stressful or adverse circumstances faced by the child, especially at an early age.

There is clearly suggestive evidence that each of these elements plays a role in a child's development of resilience. Further, some elements (e.g., the child's personality development) are amenable to intervention strategies, whereas others (e.g., the child's biological traits) are not.

Because research on resilience is still in an early, descriptive stage, it is unknown how these elements act and interact with each other, either in children or in families (Garmezy, 1993), and many questions remain unanswered. For example, to what extent does resilience rely and build on biological traits, as opposed to learned patterns of behavior? Can everyone learn to be resilient, or must certain conditions be present? Can families and communities learn to be resilient, or only individuals?

Studies Addressing Resilience

The 1989 research study by E. E. Werner, whose subjects were children born on a Hawaiian island, is the best known and most frequently cited etiological study on resilience. Among the many outcomes of this remarkable study are the following:

- One-third of the children who experienced severe and extensive adverse circumstances (poor prenatal development, poverty, negative family functioning, and family disruption) developed into competent, normally functioning adults.
- The three elements in the lives of children that made the greatest difference in overcoming adversity were adequate family functioning, sources of external support, and resilient temperament (which included intelligence and a pleasant personality).
- The impact of various risk and protective factors varied depending on when they occurred in the child's development. For example, successful functioning at one point in development did not guarantee it at a later point.
- Some of the children experiencing adverse consequences grew up to be competent adults, but not necessarily psychologically well-adjusted or happy adults.

Other researchers, who examined maltreated children (Herrenkohl et al., 1994), high-risk adolescents (Luthar, 1991), and children in poverty (Garmezy, 1993), confirmed or expanded on these findings. Related research has revealed the following:

- Children do not necessarily exhibit competence in all domains at the same time. For example, they may be academically competent but unable to have close friends (Luthar, 1993).
- Children may exhibit or practice competence at great personal cost. For example, intelligent children may be more susceptible to stress than their peers because they are more sensitive to their environments (Farber & Egeland, 1987; Garmezy, 1993; Werner, 1989).
- Competence may diminish over time if an individual is subjected to enough stressors or adversity (Garmezy, 1993).

The Practice of Resilience-Based Interventions

The published research and evaluation studies on the construct of resilience define important etiological factors and document their interactions in the lives of children. However, virtually no intervention studies have been conducted that test the outcomes of resilience variables. Further, the arena of study has focused primarily on children, not on families.

Although none of the interventions discussed in chapter 3 were designed to evaluate resilience directly, several are closely allied to important elements of resilience (Aktan, Kumpfer, & Turner, 1996; Kumpfer & DeMarsh, 1987; Kumpfer, Turner, & Palmer, 1991). These interventions include multicomponent strategies designed to enhance protective factors, such as effective communication and family management practices at home and school, that can buffer the effects of ongoing stresses and adversity in a child's development (Catalano, Haggerty, Gainey, Hoppe, & Social Development Research Group, 1995; Hawkins, Von Cleve, & Catalano, 1991; Hawkins et al., 1992). These strategies also include therapeutic interventions designed to restore effective family functioning by building on family and cultural strengths (Szapocznik et al., 1986, 1989).

As the results of etiological research on resiliency have filtered into the practice literature, many practitioners have provided training on resiliency and its relationship to enhancing protective factors for children and families. The concept has been widely shared as a framework for highlighting the experiences of children, as many practitioners believe this construct can make a significant difference in outcomes.

The Status of Resilience Research and Evaluation

Most resiliency researchers agree that the construct involves interaction among the child's biological and personality characteristics, his or her environmental influences

and experiences, and the ability of the child to mature psychologically (Herrenkohl et al., 1994). However, little is known about *how* these factors interact. Most of what is known is based on etiological studies of the associations between childhood behavioral issues and later adolescent substance abuse. Some researchers debate whether resilience is actually a protective factor and should be researched as such or if it is a separate construct and area of research that extends beyond protective factors.

Although there is reason to believe that some aspects of resilience as a construct can be confirmed through research, there are enormous barriers to research and documentation efforts. Differing perceptions of what constitutes resilience and competence, the need to sort out the complex interplay of risk and protective mechanisms, and the interactions among various domains and developmental stages must be further explored to clearly define an effective research intervention study.

The Construct of Family Support

The driving force behind the construct of family support is the conviction that family-helping programs and resources have the responsibility to go beyond preventing problems to supporting optimum development of the capacities inherent in all families.

The self-help and community-based movements of the 1960s and the changing demographics of the 1970s influenced many practitioners in the beliefs that traditional helping strategies were not sufficient and that limited resources must be stretched further to address ever-intensifying family issues. It also became clear that, for the benefit of both families and communities, solutions to family needs must support the development of family capacities to act on their own behalf and gain control over their environment (Weissbourd & Kagan, 1989). This concept is often referred to as *empowerment*.

Toward this end, service providers experimented with ways to engage people more fully in activities deemed beneficial. They also investigated ways to elicit concerns and interests so that a menu of services could be tailored to the individual (National Resource Center for Family Support Programs, 1993). However, these efforts were top-down and service directed and did not achieve the results hoped for by practitioners.

The construct of family support emerged from these concerns and experiences of practitioners, as well as from the growing research literature on risk and protective factors. Family support assumes that all families have inherent competencies and capacities that can promote children's healthy development. Further, family support assumes that family-helping programs and resources must go beyond preventing problems to supporting optimum development of these capacities. Expressed in a diverse group of programs, this construct is based on a set of consensually developed principles and premises that center on the inherent skills of families to improve their own outcomes.

Family support is proactive and views parenting as a developmentally learned task in all families. The construct affirms that strategies for delivering family services should be rooted in a community support system. The strengths and assets of both families and communities are stressed as the starting point for developing family support (Dunst, Trivette, & Deal, 1988; Weissbourd & Kagan, 1989).

Through the Best Practices Project, the Family Resource Coalition (1996) brought together leading family support researchers, theoreticians, and practitioners in a series of meetings and focus groups. This led to agreement on the premises of family support, the principles of family support practice, the definition of best practices, and a conceptual framework for training in family support. The consensus report from this effort defined a set of seven "Premises of Family Support" and nine "Principles of Family Support," which together describe the family support philosophy, its underlying values, and the means by which these values are carried out in practice. These premises and principles are described in the following sections.

Premises Underlying the Family Support Construct

Despite the diversity of family support programs, virtually all share the same philosophical premises and underlying values, which form the point of view from which family support programs have been initiated and developed, and from which practice has emerged (Family Resource Coalition, 1996). These premises are the following:

1. Primary responsibility for the development and well-being of children lies within the family, and all segments of society must support families as they rear their children. The systems and institutions upon which families rely must effectively respond to the needs of families to establish and maintain environments that promote growth and development. This goal requires a society that is committed to prioritizing the well-being of children and families and to supporting that commitment by allocating necessary resources.
2. The cornerstone of a healthy society is the well-being of families, who should have universal access to support programs and services. A national commitment to promoting the healthy development of families acknowledges that every family, regardless of race, ethnic background, or economic status, needs and deserves a support system. Since no family can be self-sufficient, the concept of reaching families before problems arise is not possible unless all families are reached. A public mandate is therefore necessary to make family support accessible and available to all on a voluntary basis.
3. Children and families exist as part of an ecological system. An ecological approach assumes that child and family development is embedded within broader aspects of the environment, including a community with cultural, ethnic, and socioeconomic characteristics that are affected by the values and policies of the

larger society. This perspective assumes that children and families are influenced by interactions with people, programs, and agencies as well as by values and policies that may help or hinder families' ability to promote their members' growth and development. The ecological context in which families operate is therefore a critical consideration in programs' efforts to help families.

4. Child-rearing patterns are influenced by parents' understanding of child development and of their children's unique characteristics, by their personal sense of competence, and by cultural and community traditions and mores. There are multiple determinants of parents' child-rearing beliefs and practices, and each influence is connected to other influences. Because the early years set a foundation for the child's development, patterns of parent-child interactions are significant from the start. The unique history of the parent-child relationship is an important consideration in a program's efforts.
5. Building on strengths, rather than treating deficits, assists parents in dealing with difficult life circumstances and in achieving their goals, and therefore enhances parents' capacity to promote their children's healthy development. Family support programs encourage development of competencies and capacities that enable families to have control over important aspects of their lives and to relate to their children more effectively.
6. The developmental processes of parenthood and family life create needs that are unique at each stage in the lifespan of the offspring. Parents grow and change in response to varying circumstances and to the challenges of nurturing a child's development. The tasks of parenthood and family life are ongoing and complex, requiring physical, emotional, and intellectual resources. Many tasks of parenting are unique to the child's developmental stage; others are unique to the parent's point in his or her life cycle. Additionally, parents have been influenced by their own childhood experiences and their own psychological characteristics, and are affected by their past and present family interactions.
7. Families are empowered when they have access to information and other resources and take action to improve the well-being of children, families, and communities. Access to resources in the community—including up-to-date information and high-quality services that address health, educational, and other basic needs—enables families to develop and foster optimal environments for all members. Meaningful experiences participating in programs and influencing policies strengthen existing capabilities and promote development of new competencies in families, including the ability to advocate on their own behalf.

The Principles of Family Support Practice

The accepted guidelines for this construct are built around principles that state how family support premises are carried out in programs. While specific practice strategies may be different in different program situations, they should be consistent with

the principles that guide family support work. The following principles describe good family support practice (Family Resource Coalition, 1996):

1. Staff and families work together in relationships based on equality and respect.
2. Staff enhance families' capacity to support growth and development of all family members—adults, youth, and children.
3. Families are resources to their own members, to other families, to programs, and to communities.
4. Programs affirm and strengthen families' cultural, racial, and linguistic identities and enhance families' ability to function in a multicultural society.
5. Programs are embedded in their communities and contribute to the community-building process.
6. Programs advocate with families for services and systems that are fair, responsive, and accountable to the families served.
7. Practitioners work with families to mobilize formal and informal resources to support family development.
8. Programs are flexible and continually responsive to emerging family and community issues.
9. Principles of family support are modeled in all program activities, including planning, governance, and administration.

Family support theorists and practitioners put forward the following ways in which family support differs from other prevention approaches:

Opportunity Factors Versus Risk Factors. Within the construct of family support, risk factors are defined as influences that impede the development of family competence, whereas opportunity factors are those influences that facilitate and promote competence (Garbarino & Abramowitz, 1992). Rather than focusing merely on eliminating risks, interventions should promote opportunities for developing family competence. Although the concept of promoting opportunities appears to be similar to that of enhancing protective factors, family support researchers believe that this concept extends further, beyond the focus on deficits to which protective factors are tied (Dunst, Trivette, & Thompson, 1990).

Resource-Based Intervention Practices Versus Delivery to Those at Highest Risk (Greatest Need). Resource-based interventions focus on identifying and mobilizing a range and network of community social support systems that are available to everyone. This contrasts with the usual focus on the delivery of specific services that become available after diagnosis and the prioritization of scarce resources to serve those in greatest need. Three studies that examined implementing resource-based practices with families found that families progressed more effectively toward positive outcomes and viewed themselves as more satisfied with their personal control of

outcomes when they acquired skills for identifying and mobilizing community resources (Trivette, Dunst, & Deal, 1996).

Family Empowerment Versus Professionally Diagnosed Services. The concept of empowerment encompasses the following three assertions: (1) People are, or have the capacity to be, competent; (2) an inability to demonstrate competence, rather than indicating inadequacies of the individual, indicates that society has failed to create opportunities for people to become competent; and 3) people seeking help must reach a point where they believe they have enough control over their lives to manage them (i.e., they attribute what happens in influencing important life events to their capabilities) (Dunst et al., 1988; Dunst & Trivette, 1994).

To empower families, practitioners need to change how they view their responsibilities and relationships with families, so that families have central roles in the development and selection of all areas of policy, practice, and services that affect them (Dunst & Trivette, 1994.)

Status of Family Support Practice

Over the past 10 years, the family support construct has been widely enacted in practice, providing services to families in a broad array of settings. Targeted interventions have been provided to families who are involved with the child welfare system; those who have children with disabilities; those in need of programs for child development and care; those with newborns; and those with special needs in the areas of literacy, employment, or vocational training. Numerous settings have been used to provide general support to families in the areas of recreation, parenting education, information and referral, self-help groups, home visiting programs, and parent-child interactions (Deutelbaum, 1992; National Resource Center for Family Support Programs, 1993; National Resource Center for Family Support Services, 1982; Simmens & Harrison, 1991; Weissbourd & Kagan, 1989).

Further impetus to family support practice occurred in 1993 with the passage of the Omnibus Budget Reconciliation Act of 1993. Title IV-B, Subpart 2 of the Social Security Act (Public Law 103-66) provided funds for States to develop family support programs to serve children and families who would benefit from access to family development resources but who may not qualify for support or need the resources of the formal child welfare system. This has resulted in development of pilot family support programs, passing of State laws, and provision of State and local funds to replicate family support efforts that have demonstrated successful practice.

Status of Research and Evaluation on Family Support

Researchers and practitioners who evaluate family support interventions believe that the traditional approach that relies only on experimental or quasi-experimental de-

sign is insufficient. They contend that the processes used to design and implement research are as important as the process and outcome findings of the research. To evaluate family support interventions, they maintain that research should embody the family support premises and principles by involving the participants in the research design and implementation processes, and by incorporating research methodologies that ensure the evaluation goals and results are "owned" by the community of users as well as researchers.

It is the deliberate exploration of these research methodologies and processes that has created a new, if still rudimentary, body of research literature for family support (Harvard Family Research Project, 1996; Whitmore, 1991). The Federal Government and a number of leading foundations are currently conducting evaluative research on family support programs that incorporate the range of methodologies described above.

Etiological researchers have focused on efforts to describe the construct, to define the elements that distinguish it from other theories or models, and to sort out significant variables. Recent and ongoing research efforts include identifying the importance of using informal resources to help families, determining how a family's style of functioning affects its capacity to cope and promote positive growth, and describing the effects of different modes of helping on an individual's ability to become more independent (Deal, Dunst, & Trivette 1989). Some researchers have suggested models of intervention (Dunst, 1995) and checklists for use by practitioners to assess the extent to which their programs implement family support principles (Dunst, 1990).

An additional, overarching problem for research on developing family support interventions has been the lack of data sources and information about family and community strengths and assets. Virtually all of the data about families describe either neutral or deficit information, problems, and needs, such as that presented in chapter 1 of this guideline. Many of the large foundation- and publicly funded research evaluations of family support projects have required community mapping (as described in chapter 4) to lay the groundwork for summarizing national and State data about community strengths.

However, data on family strengths are still inadequate and data on community strengths have not yet been summarized and analyzed to determine regional and national trends and statistics. Without national and local descriptive data about the positive characteristics of families and the areas in which they succeed, it will be difficult to identify the strengths and assets that are most useful to families.

CONCLUSION

Many practitioners have developed and currently use interventions based on evolving etiological and intervention theories, especially if they make intuitive sense and address emerging problems. The constructs of resilience and family support are examples of such theories. They focus on helping families develop capacities for self-efficacy and emanate from the recognition that all families benefit from support in their development, although some may need more support than others. Interventions based on principles of resilience and family support offer program and fiscal alternatives to treatment- and deficit-focused strategies. The challenge for researchers is to keep pace with practice by further defining constructs, developing accurate measures, incorporating participatory evaluation processes, and assembling findings into an integrated body of evidence. Such efforts can help to identify and increase the mechanisms of effectiveness in these emerging areas of prevention.

REFERENCES

Aktan, G. B., Kumpfer, K. L., & Turner, C. W. (1996). Effectiveness of a family skills training program for substance use prevention with inner-city African-American families. *Substance Use and Misuse, 31*(2), 157–175.

Catalano, R. F., Haggerty, K. P., Gainey, R. R., Hoppe, M. J., & Social Development Research Group. (1995). *Reducing parental risk factors for children's substance abuse: Preliminary outcomes with opiate-addicted parents.* Unpublished manuscript.

Deal, A. G., Dunst, C. J., & Trivette, C. M. (1989). A flexible and functional approach to developing individualized family support plans. *Infants and Young Children, 1*(4), 32–43.

Deutelbaum, W. (1992, spring). Family systems and poverty programs. *The Prevention Report.* Iowa City, IA: National Resource Center on Family Based Services, University of Iowa School of Social Work.

Dunst, C. J. (1990). Family support principles: Checklists for program builders and practitioners. In *Family systems intervention monograph series* (Vol. 2, No. 5). Unpublished monograph. Morgantown, NC: Family, Infant and Preschool Program, Western Carolina Center.

Dunst, C. J. (1995, June). *Risk and opportunity factors influencing child and family behavior and development.* Paper presented at the Fourth National Early Intervention Meeting, Coimbra, Portugal.

Dunst, C. J., & Trivette, C. M. (1994). Aims and principles of family support programs. In C. J. Dunst, C. M. Trivette, & A. G. Deal (Eds.), *Supporting and strengthening families. Volume 1: Methods, strategies and practices.* Cambridge, MA: Brookline Books.

Dunst, C. J., Trivette, C. M., & Deal, A. G. (1988). *Enabling and empowering families.* Cambridge, MA: Brookline Books.

Dunst, C. J., Trivette, C. M., & Thompson, R. B. (1990). Supporting and strengthening family functioning: Toward a congruence between principles and practice. *Prevention in Human Services, 9*(1), 19–43.

Elder, G. H., Jr. (1974). *Children of the Great Depression.* Chicago: University of Chicago Press.

Elder, G. H., Jr., Liker, J. K., & Jaworski, B. J. (1984). Hardship in lives: Historical influences from the 1930s to old age in postwar America. In K. McCluskey, & H. Reese (Eds.), *Life span developmental psychology: Historical and cohort effects.* New York: Academic Press.

Epstein, H. (1979). *Children of the Holocaust.* New York: Penguin Books.

Family Resource Coalition. (1996). *Guidelines for family support practice.* Chicago: Author.

Farber, E., & Egeland, B. (1987). Abused children: Can they be invulnerable? In J. Anthony, & B. Cohler (Eds.), *The vulnerable child.* New York: Guilford Press.

Garbarino, J., & Abramowitz, R. (1992). Sociocultural risk and opportunity. In J. Garbarino (Ed.), *Children and families in the social environment* (2nd ed., pp. 35–70). New York: Alan de Gruyter.

Garmezy, N. (1993). Children in poverty: Resilience despite risk. *Psychiatry, 56,* 127–136.

Goldfarb, W. (1943). The effects of early institutional care on adolescent personality. *Journal of Experimental Education, 12,* 106–129.

Harbison, J. (Ed.). (1983). *Children of the troubles.* Belfast, Ireland: Stranmillas College.

Harvard Family Research Project. (1996). Evaluating Old Grove's Family Support Center. *The Evaluation Exchange, 2*(2), 1–5.

Hawkins, J. D., Von Cleve, E., & Catalano, R. F. (1991). Reducing early childhood aggression: Results of a primary prevention program. *Journal of the American Academy of Child Adolescent Psychiatry, 30*(2), 208–217.

Hawkins, J. D., Catalano, R. F., Morrison, D. M., O'Donnell, J., Abbott, R. D., & Day, L. E. (1992). The Seattle Social Development Project: Effects of the first four years on protective factors and problem behaviors. In J. McCord, & R. E. Tremblay (Eds.), *Preventing antisocial behavior: Interventions from birth through adolescence* (pp. 139–161). New York: Guilford Press.

Herrenkohl, E. C., Herrenkohl, R. C., & Egolf, B. (1994). Resilient early school-age children from maltreating homes: Outcomes in late adolescence. *American Journal of Orthopsychiatry, 64*(2), 301–309.

Jahoda, G., & Harrison, S. (1975). Belfast children: Some effects of a conflict environment. *Irish Journal of Psychology, 3*, 1–19.

Kumpfer, K. L., & DeMarsh, J. P. (1987). *Prevention services for children of substance-abusing parents.* Unpublished manuscript, University of Utah, Social Research Institute, Graduate School of Social Work.

Kumpfer, K. L., Turner, C. W., & Palmer, S. (1991). *YCOSA Black Parenting project: Third and fourth year evaluation report.* Unpublished manuscript, University of Utah, Department of Health Education.

Langmeier, J., & Matejcek, Z. (1975). *Psychological deprivation in childhood.* New York: Halsted Press.

Leavitt, L. A., & Fox, N. A. (Eds.). (1993). *Psychological effects of war and violence on children.* Hillsdale, NJ: Erlbaum.

Luthar, S. S. (1991). Vulnerability and resilience: A study of high-risk adolescents. *Child Development, 62*, 600–616.

Luthar, S. (1993). Methodological and conceptual issues in research on childhood resilience. *Journal of Child Psychology and Psychiatry, 34*(4), 441–453.

Luthar, S. S., & Cushing G. (in press). Measurement issues in the empirical study of resilience: An overview. In M. Glantz, Z. Sloboda, & L. C. Huffman (Eds.), *Resiliency and development: Positive life adaptations.* New York: Plenum Press.

National Resource Center for Family Support Programs. (1993, January). *Family support programs and the prevention of alcohol and other drug abuse (AOD)* (No. 1). Chicago: Family Resource Coalition.

National Resource Center for Family Support Services. (1982, spring). Family based services: Relevance for prevention. *The Prevention Report.* Iowa City, IA: National Resource Center on Family Based Services, University of Iowa School of Social Work.

Rutter, M., & Quinton, D. (1984). Long-term follow-up of women institutionalized in childhood: Factors promoting good functioning in adult life. *British Journal of Developmental Psychology, 2*(3), 191–204.

Simmens, F., & Harrison, J. (1991, spring). Family-centered services: Missouri's case management model for child welfare. *The Prevention Report.* Iowa City, IA: National Resource Center on Family Based Services, University of Iowa School of Social Work.

Spitz, R. A. (1945). Hospitalism: An inquiry into the genesis of psychiatric conditions in early childhood. *The Psychoanalytic Study of the Child, 1*, 53–74.

Spitz, R. A. (1946). Hospitalism: A follow up report. *The Psychoanalytic Study of the Child, 2*, 113–117.

Szapocznik, J., Rio, A., Perez-Vidal, A., Kurtines, W., Hervis, O., & Santisteban, D. (1986). Bicultural effectiveness training (BET): An experimental test of an intervention modality for families experiencing intergenerational/intercultural conflict. *Hispanic Journal of Behavioral Sciences, 8*(4), 303–330.

Szapocznik, J., Santisteban, D., Rio, A., Perez-Vidal, A., Santisteban, D., & Kurtines, W. M. (1989). Family effectiveness training: An intervention to prevent drug abuse and problem behaviors in Hispanic adolescents. *Hispanic Journal of Behavioral Sciences, 11*(1), 4–27.

Thoits, P. (1983). Dimensions of life events that influence psychological distress: An evaluation and synthesis of the literature. In H. Kaplan (Ed.), *Psychosocial stress: Trends in theory and research.* New York: Academic Press.

Trivette, C. M., Dunst, C. J., & Deal, A. G. (1996). Resource-based early intervention practices. In S. K. Thurman, J. R. Cornwell, & S. R. Gottwald (Eds.), *The contexts of early intervention: Systems and settings.* Baltimore: Brookes Publishing.

Turner, S., Norman, E., & Zunz, S. (1993). *From risk to resiliency, a paradigm shift: A literature review and annotated bibliography.* Unpublished manuscript, Fordham University, Graduate School of Social Service, New York.

Weissbourd, B., & Kagan, S. L. (1989). Family support programs: Catalysts for change. *American Journal of Orthopsychiatry, 59*(1), 20–31.

Werner, E. E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry, 59*, 72–81.

Werner, E. E., & Smith, R. S. (1982). *Vulnerable but invincible: A study of resilient children.* New York: McGraw-Hill.

Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood.* Ithaca, NY: Cornell University Press.

Whitmore, E. (1991). Evaluation and empowerment: It's the process that counts. *Empowerment and Family Support, 2*(2), 1–8.

Appendixes

CHAPTER 1:
Substance Abuse Problems and the Status of the American Family

CHAPTER 2:
Risk and Protective Factors and Developmental Models in the Etiology of Substance Abuse

CHAPTER 3:
Analysis of Evidence and Recommendations for Practice

CHAPTER 4:
Program Development and Delivery of Family-Centered Prevention Approaches

CHAPTER 5:
Emerging Areas of Research and Practice

APPENDIXES

Appendix A:
PEPS Participants A-3

Appendix B:
Research and Practice Search Protocols B-1

Appendix C:
Methodology for Arriving at Recommendations C-1

Appendix D:
Collateral Areas of Interest D-1

Appendix E:
Abbreviations and Glossary E-1

Appendix F:
Resource Guide F-1

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Appendix B: Research and Practice Search Protocols

PROTOCOL FOR IDENTIFYING RESEARCH EVIDENCE

1. Through revisions of the prospectus and meetings of the Federal Resource Panel, the topics to be covered in this guideline were narrowed and keywords identified.
2. The first set of searches, conducted in PsycLIT, MEDLINE, Reader's Guide Abstracts, and Sociofile databases, located literature regarding the following:
   a. The combination of keywords,
      — children, family, or parents; *and*
      — substance or drug use or abuse; *and*
      — prevention.
   b. Names of proposed Expert Panelists.
   c. Deviant behavior and adolescents.
   d. Ecology of substance abuse.
3. The PEPS Team Leader selected articles for retrieval based on the abstracts obtained in the initial database search. Once retrieved, the articles were added to an annotated bibliography, which was updated frequently with new resources throughout the search process.
4. Several recently published books from local health libraries were reviewed and the appropriate chapters retrieved.
5. Bibliographies from the panel chair's research and that of other panel members were reviewed by the Team Leader. Promising articles from these bibliographies, as well as articles directly recommended by the panel chair, were retrieved.

6. Most of the abstracts from Reader's Guide Abstracts, MEDLINE, and Sociofile did not yield promising or new information during the first searches. Therefore, a second group of searches was performed only on PsycLIT, as follows:
   a. Names of family-focused prevention researchers.
   b. Resilient children, youth, and adolescents.
   c. High-risk children, youth, and adolescents.
   d. Protective factors.
   e. Family support.
   f. Family preservation.
7. A search of the Family Resources Database was performed on Dialog to locate publications after 1987 regarding
   a. family, parent, adolescent, or child; *and*
   b. alcohol, tobacco, substance, or drug use or abuse; *and*
   c. prevention.
8. After a meeting with the panel chair and the PEPS Team Leader, PEPS staff completed literature searches in PsycLIT and Sociofile, using the following keywords:
   a. Home-based therapy and intervention.
   b. Family therapy.
   c. Family skills training.
   d. Parent education, training, aid, and support.

   Because these keywords sometimes yielded an unwieldy number of nonrelevant articles, some of these searches were made more specific by the use of other keywords, such as *substance abuse, drugs, youth,* and *children.*
9. During the next few searches, as the PEPS Team Leader and the panel chair narrowed the scope of the guideline, articles were identified by using the following methods:
   a. Searching names of authors who published promising studies already retrieved by PEPS staff.
   b. Retrieving articles cited in the bibliographies of studies written by the panelists and of other promising studies already retrieved by staff.
   c. Searching approach-specific keywords suggested by the panel chair.
10. After the Expert Panel's first meeting, during which the prevention approaches to be described in the guideline were defined, PEPS staff conducted a search by the names of approaches that had not yet been searched. In addition, the panel provided PEPS staff with a wealth of research resources to be retrieved within each approach and procedures for assessing fugitive literature.
11. In addition, several panelists submitted approach-specific lists of resources, which were reviewed by the PEPS Team Leader.

12. A variety of similar searches were conducted to gather information on conduct disorders and on behavior problems of adolescents.
13. All of the retrieved articles were reviewed. Those meeting the criteria of relevancy to the topic and application of an intervention to prevent alcohol, tobacco, and illicit drug use among children and adolescents were selected for annotation. Criteria included the following:
    a. The child, rather than the family, was the target of prevention efforts.
    b. The treatment group included more than 10 subjects.
    c. The intervention study had relevant outcome measures.
    d. The target child was at least 4 years old.
14. The articles that met the criteria were annotated and organized by approach.
15. The PEPS manager, the PEPS Team Leader, the panel chair, and finally, the Expert Panel for this guide reviewed the approaches and articles and selected those to be included.
16. Six of the approaches that were initially considered were eliminated from presentation in chapter 3 because the available research on them was insufficient. Research was considered sufficient for those approaches that had been examined in at least three intervention research studies. Therefore, approaches examined only in practice literature were eliminated. The six eliminated approaches were
    a. parent leadership,
    b. parent peer support,
    c. parent involvement in youth prevention programs,
    d. parent-child activities,
    e. parent education, and
    f. family support.

RESULTS

- More than 700 articles were retrieved.
- A total of 52 research studies, represented by 64 articles, were included in the guideline.

PROTOCOL FOR SOLICITING PRACTICE EVIDENCE

1. Single State and Territorial Agency (SSA) directors, State National Prevention Network (NPN) designees, and Federal Resource Panel members were each sent a letter requesting information on family-based programs that serve as examples of how to (and how not to) prevent alcohol, tobacco, and illicit drug-related problems within the context of the family as a social and cultural unit. The letters included background information on the PEPS program, a short nomination form requesting contact information concerning practice

projects (see Practice Evidence Nomination Form at the end of this appendix), and a longer nomination form requesting specific project information.

2. Other groups who received requests for nomination included the following:
   a. The Robert Wood Johnson Foundation.
   b. American Humane Association.
   c. Child Welfare League of America.
   d. National Resource Center for Family-Centered Practice.
   e. Center for Family Research.
   f. Center for the Improvement of Child Caring.
   g. Parenting: A Skills Training Program, Pennsylvania State University.
   h. COSSMHO (National Coalition for Hispanic Health and Human Services).
   i. Ounce of Prevention.
   j. Family Resource Coalition.
   k. National Black Child Development Institute.
   l. The Carnegie Foundation.
3. Followup phone calls were made to the State directors requesting the return of the nomination forms. Nominations were received from 31 States.
4. Followup faxes requesting project information were sent to all nominated contact persons.
5. All nominated projects were reviewed. Those meeting the following criteria were selected for annotation:
   a. Clearly stated objectives.
   b. Definition and description of the intervention.
   c. Process evaluation documentation.
   d. Outcome evaluation information.
   e. Adequate documentation to annotate the project.
6. Those projects that met the criteria were annotated and organized by approach.
7. The annotations were reviewed by the Family Expert Panel Subgroup for inclusion in the guideline.

Results

- A total of 108 programs were reviewed.
- Nine programs met the criteria and were included in the guideline.

Practice Evidence Nomination Form

CRITERIA FOR PEPS PROGRAM REVIEW/TRIAGE (Please check all questions that apply.)	YES	NO	DO NOT KNOW
Planning/Rationale Was a community/group needs assessment conducted? Were specific research findings/concepts used as a basis for program planning?			
Program Design Are objectives clearly documented? Are selected strategies/activities explicitly related to stated objectives?			
Documentation Is there a system in place for documenting implementation and operations? Documenting outcomes? Are progress reports, program assessments, and evaluation results available? Are training materials and/or operations manuals available?			
Evaluation/Outcomes If program has ended: Did the program achieve desired outcomes or related positive outcomes? If program has not ended: Are there specific plans to assess outcomes?			
Replication Does the program show promise for replication? Has this program been replicated?			

Appendix C: Methodology for Arriving at Recommendations

ANALYSIS OF RESEARCH AND PRACTICE EVIDENCE

The analysis of research and practice evidence was conducted on two levels. First, each research study and practice case was analyzed on an individual level with regard to design strengths, weaknesses, and potential biases. Second, each group of research articles and/or practice cases was analyzed by each approach.

Individual-Level Analysis

Each research study and practice case was analyzed with regard to overall summary information, intervention factors, and research/intervention design. Also, practice evidence was analyzed in terms of process evaluation. The format for analyzing research studies and practice cases, the Annotation Shell, is shown in exhibit C-1.

Overall summary information included an overview or abstract of the evidence, the stated or assumed hypothesis guiding the intervention, and a description of the conceptual framework, if any. The summary included the purpose or overall rationale for the study and the objectives of the intervention. The findings were described, including primary and secondary study outcomes, and unintended outcomes, if any.

EXHIBIT C-1: Annotation Shell

(Citation)

SECTION 1: SUMMARY

OVERVIEW
HYPOTHESIS
CONCEPTUAL FRAMEWORK
PURPOSE
OBJECTIVES
FINDINGS
CONCLUSIONS

SECTION 2: THE INTERVENTION

TYPE OF INTERVENTION
DRUGS OF ABUSE
ALCOHOL-, TOBACCO-, AND OTHER DRUG-RELATED BEHAVIORS
GENERAL RISK FACTORS
TARGET ENVIRONMENT OR POPULATION
SOCIAL OR INSTITUTIONAL SYSTEMS INVOLVED
STRATEGIES
ACTIVITIES

SECTION 3: PROCESS EVALUATION

NUMBER OF PERSONS OR AGENCIES SERVED
SOCIODEMOGRAPHIC INFORMATION
AMOUNT OF SERVICE PROVIDED
NUMBER OF MATERIALS DISTRIBUTED AND CALLS RECEIVED
LIST OF COLLABORATORS
WORK PLANS AND PROGRESS REPORTS
NEEDS ASSESSMENT
TARGET GROUP REPRESENTATION IN PROGRAM
FACILITATION OF OBJECTIVES BY ACTIVITIES
APPROPRIATENESS OF MATERIALS
RECIPIENT PARTICIPATION AS EXPECTED

SECTION 4: RESEARCH DESIGN

EVALUATION OR STUDY DESIGN
MEASUREMENT
ANALYSES
ASSESSMENT OF EVIDENCE
AUTHOR DISCUSSION OF BIAS
COMMENTS

A substantial amount of information was collected with regard to the intervention. This included the type of intervention, the drugs of abuse being studied, the drug-related behaviors being studied, individual and environmental risk factors being studied, the target population of the intervention, the social or institutional

systems involved, the type of approaches being used in the intervention, and the specific approaches and activities of the intervention.

Evaluation of the research design was comprehensive and included noting the specific research design employed, the specific behaviors or changes being measured, and the statistical analyses used. The process included a comprehensive review of potential biases that could have influenced the outcomes and attribution of effect.

Each prevention practice case was evaluated with regard to process evaluation. This involved addressing the adequacy of the quantitative and qualitative information collected.

Group-Level Analysis (Overall Level of Evidence)

Once research and practice evidence were analyzed on an individual level, they were grouped according to prevention approach and then analyzed as a group. The goal of this analysis was to determine what conclusions could be drawn about the evidence for a specific prevention approach and to ascertain the strength of the evidence supporting the conclusions.

The strength or level of evidence was categorized as one of the following: strong, medium, suggestive but insufficient evidence, or substantial evidence of ineffectiveness. These levels are summarized in table C-1.

Criteria for Grading Levels of Evidence

The criteria for *strong level of evidence* included consistent results of strong or medium effect from a series of studies, including at least three well-executed studies with experimental or quasi-experimental designs. Alternatively, there could be two well-executed research studies with experimental or quasi-experimental designs and consistent results from at least three case studies.

Either way, there should have been the use of at least two different methodologies, unambiguous time ordering of intervention and results, and a plausible conceptual model ruling out or controlling for alternative causal paths or explanations.

The criteria for *medium level of evidence* included consistent positive results from a series of studies, including at least two well-executed studies with experimental or quasi-experimental designs. Alternatively, there could be at least one well-executed study and three prevention case studies showing statistically significant or qualitatively clear effects.

Either way, there should have been the use of at least two different methodologies; unambiguous time ordering of intervention and results when so measured; and a plausible conceptual model, whether or not competing explanations had been ruled out.

TABLE C-1: Criteria for Grading Levels of Evidence

Level of Evidence	Criteria
1. Strong	**a.** Consistent results of strong or medium positive effect from a series of studies, including at least three well-executed studies with experimental or quasi-experimental designs; determination of this level is strengthened by evidence from research in which at least two different methodologies were used. **OR** Evidence from two research studies with experimental or quasi-experimental designs and consistent results from at least three case studies. **b.** Unambiguous time ordering of intervention and results. **c.** Existence of a plausible conceptual model, ruling out or controlling for alternative causal paths or explanations.
2. Medium	**a.** Consistent positive results from a series of studies, including at least two well-executed studies with experimental or quasi-experimental designs; determination of this level is strengthened by evidence from research in which at least two different methodologies were used. **OR** At least one well-executed study and three case studies showing statistically significant or qualitatively clear effects. **b.** Unambiguous time ordering of intervention and results, when measured. **c.** Existence of a plausible conceptual model, whether or not competing explanations have been ruled out.
3. Suggestive but Insufficient Evidence	**a.** Intervention based on plausible conceptual model or previous research. **b.** Rigorous evaluation studies or appropriate intervention programs in process. **c.** Minimal available evidence linking intervention being tested to positive effect.
4. Substantial Evidence of Ineffectiveness	The absence of a statistically significant effect or a statistically significant effect in the unexpected direction in a majority of well-executed studies, including at least two quantitative studies with sample sizes sufficient to test for the significance of the effect.

A third category, called *suggestive but insufficient evidence,* was used to describe research and/or practice evidence based on a plausible conceptual model or on previous research and demonstrated in rigorous evaluation studies or appropriate intervention programs currently in process. One of two conditions typically prompted this categorization. In the first condition, the evidence, although limited, appeared to support a conclusion, but additional data were needed to fully support this conclusion. This condition often applied to areas in which there have been little study, such as those that are impractical to research or new areas of study. A second condition involved equivocal results. In this condition, a specific conclusion was supported in some studies but not in others.

The three categories described above provide a way to arrange research and practice evidence for which there are varying degrees of confirmation of positive effect. A fourth category called *substantial evidence of ineffectiveness* describes research and practice evidence demonstrating that a prevention approach is not effective. The criteria for inclusion in this category was the absence of a statistically significant effect or a statistically significant effect in the unexpected direction in a majority of well-executed studies, including at least two quantitative studies with sample sizes sufficient to test for the significance of the effect.

RULES OF EVIDENCE ABSTRACT

The Center for Substance Abuse Prevention (CSAP) created the Prevention Enhancement Protocols System (PEPS) as part of its initiative to support and strengthen the prevention systems in the States and territories. PEPS aims to compile, analyze, and synthesize existing knowledge on specific topics in the prevention of alcohol, tobacco, and illicit drug-related problems. These topics are considered by experts to have major consequences for the field of substance abuse prevention. Further, there is substantial knowledge available on these chosen topics to synthesize in the form of specific guidelines. The PEPS guidelines are designed to assist States, practitioners, and community-based organizations in program planning, allocating resources, and choosing program options appropriate for the needs of their target populations.

Several previous attempts have been made by CSAP—as well as by other Federal, State, and community-based organizations—to provide guidance to the field. PEPS, however, is the first known systematic guideline development process in the field of alcohol, tobacco, and illicit drug problem prevention. Although the accumulated knowledge and practice in the field of prevention in general, and alcohol, tobacco, and illicit drug problem prevention in particular, present special challenges for developing systematic guidelines, PEPS has benefited from earlier efforts by Federal agencies and professional medical societies in developing guidelines for medical practice.

Early in the PEPS program, CSAP was faced with the choice of developing guidelines through primary reliance on professional consensus or explicit evidence. Under the former methodology, a group of well-known consultants is assembled and asked to develop the guidelines based on their knowledge of the literature and their own experience. Under the latter methodology, published and unpublished evidence on a given guideline topic are researched according to a defined protocol and analyzed for validity. The cumulative evidence is then synthesized and its strength assessed according to clearly laid out rules for synthesis and development of recommendations.

Although the evidence-based approach demanded greater effort and investment of resources, CSAP decided that developing the guidelines on the basis of explicit evidence would provide more valid tools for prevention planners and practitioners and would also further the quest for new knowledge in areas where evidence is not strong or is lacking. To this end, the *PEPS Planning Manual* was developed to instruct participants in the various stages of the development of guidelines under the PEPS program.

The *Planning Manual* contains the rules of evidence document, which provides criteria for assessing the strength of available evidence for the effectiveness of alcohol, tobacco, and illicit drug problem prevention interventions, measures, and programs. These criteria are applied by the PEPS team to determine the level of evidence available for a particular intervention. The level of evidence indicates the level of confidence that there is a causal relationship between a prevention intervention and a change in the outcome(s) of interest; thus, it indicates the overall effectiveness of the prevention activity.

The *Planning Manual* also presents definitions of research and practice evidence. These definitions are followed by summaries of methodological and design issues to be considered in assessing individual studies and programs; criteria for determining the strength of evidence for the effectiveness of an intervention, combining research and practice evidence; and procedures for specifying the conditions under which the relationship between a particular intervention and outcome operates. The strength or level of evidence for an intervention and the conditions under which this level operates serve as recommendations regarding this intervention to the field.

The assessment criteria and levels of evidence discussed in this appendix have been developed for use in the evaluation of existing research and practice evidence. These criteria were not intended for use in designing interventions or research studies or for developing policy.

ASSESSMENT OF THE EVIDENCE

Biases

Biases are sources of systematic errors that arise from faulty designs, poor data collection procedures, or inadequate analyses. These errors diminish the likelihood that observed outcomes are attributable to the intervention. Biases are inherently present in many nonexperimental observational studies but are of special significance in case-control studies. Experimental and quasi-experimental study designs control for many of these biases.

- *Selection bias*—A selection bias results when individuals knowingly or unknowingly are selectively included or excluded from the case or the control group. Systematic and disproportionate frequency of important variables in the case or control groups may result in a spurious measure of association. Epidemiological studies are laden with problems of selection bias. Potential problems include selective admission, selective nonparticipation, selective survival, and selective detection. An example of selection bias is a comparison group that is not equivalent to the intervention group because of demographic, psychosocial, or behavioral characteristics. Because case-control studies are especially susceptible to selection bias, multiple control groups should be chosen instead of only one, and at least one of the groups should come from the same source of care as the case group.
- *Measurement bias*—Measurement bias may result when collected information on either the exposure variable or the health state is unreliable or invalid. Historical data obtained by interviewing subjects without appropriate validation against recorded data or interviews with collateral sources are especially susceptible to one form of measurement bias called *recall bias*. Another common source of measurement bias is the use of scales that have not been tested for reliability or validity. Ways to control for information bias include using only accurately recorded data, validating interview information, blinding the investigator to the identity of the case or control subjects, and adhering to an explicit and standardized method of data collection.
- *Confounding bias*—An observed effect between intervention A and outcome B may be attributable to a third factor, C, which is related to both A and B. In other words, whereas the relationship between A and B may be weak or nonexistent, the explanatory relationship is between C and B. Thus, an effect can be detected that is attributable to a confounding factor, not the intervention. Age, ethnicity, sex, and socioeconomic status are important confounders. Ways to control for confounding bias include matching techniques in the design stage and using stratification and multivariate analysis during the analysis stage.

- *Attrition*—Attrition that is nonrandom or excessive (defined as a dropout rate of 10 percent or more) in the intervention or the control group can introduce a bias in the outcome data. A differential drop-out rate between the groups may also introduce a bias in outcome data.

Internal Validity

Internal validity is the extent to which an observed effect can be attributed to an intervention. Threats to internal validity are particularly germane to intervention studies, although policy and nonintervention studies may be susceptible to threats of statistical power, history, and unit of assignment.

The overall question regarding internal validity is whether the intervention or some other factors produced the observed effect.

- *Equivalence*—For studies that have an intervention and a control or comparison group, comparisons between the two groups are most valid when they consist of subjects that are essentially similar at the beginning of the study. When this is not true, outcomes observed may not be attributable to the intervention because the groups were already different in some way.
- *Statistical power*—There should be an adequate number of participants in each of the intervention and control or comparison groups in order to detect statistically significant differences in outcomes. A rough guide for the minimum number of participants in each group is 30. Fewer than 30 participants per group generally do not yield adequate statistical power. Regardless of the total number in a group, the groups should be about the same size.
- *Intervention contamination*—It is important for the control or comparison groups to remain unaffected by the intervention. When they are affected, the control or comparison groups may change in similar ways to the intervention group, thereby obscuring the effects of the intervention. For example, intervention contamination could result if the control or comparison group received any information about the intervention that would affect the outcome.
- *Randomization or blinding of observers*—When research study staff know the status of an individual or a group (intervention or control status), they may change their own behavior in ways that can affect study outcomes. To minimize this bias, the observers can be either blinded to the conditions or randomized to measure either intervention or comparison groups.
- *Fidelity*—The intervention should be delivered consistently during the intervention period. Ideally, the researchers will have used a written protocol for intervention delivery and will have documented a standard delivery to all study participants.

- *Unit of analysis and assignment*—Participants in a prevention program can be assigned to a control or intervention condition on an individual basis or on a collective basis, such as by classroom or community. Similarly, analysis of a research study can be done on an individual or a collective basis. The unit of assignment and the unit of analysis should be the same when researchers analyze the effects of the intervention.
- *History*—Significant and unplanned national, State, local, or internal organizational events or exposure occurring at the program site during the evaluation study period can result in a change by participants. In studies with a time-series design, history is the principal threat to internal validity. For these designs, it is particularly important to assess the plausibility of effects from factors such as weather, seasonality, shifts in personnel, changes in resources, or the enactment of a new law or policy.
- *Program or participant maturation*—Natural, biological, social, behavioral, or administrative changes that occurred among participants or staff members during the study period may result in program or participant maturation and could partially account for the results obtained. Such changes can include growing older, becoming more skilled, or staff becoming more effective and efficient in program delivery.
- *Testing or observation*—Participants' behavior regarding study outcomes can change when they are frequently tested or observed. Measurements that occur at close points in time can also change the behavior and responses of study participants. The behavior of study subjects can change because, for example, they were taking a test or being interviewed or observed.
- *Statistical regression*—Statistical regression can result when an intervention or comparison group is selected on the basis of an unusually high or low level of a characteristic that may change naturally in subsequent measurements. The extent to which regression compromises results can be determined by examining the comparability of people who participate and those who do not. Studies employing a one-group pretest and posttest design or a nonequivalent control group are poor at controlling for statistical regression.
- *Interactive effects*—Any combination of the preceding factors constitutes interactive effects.

External Validity

The focus of *external validity* is generalizability, that is, the extent to which an observed effect that is attributable to an intervention can be expected in other settings and populations with similar or different characteristics.

- *Contextual factors*—In the alcohol, tobacco, and illicit drug prevention field, contextual factors relate to the degree to which a community is ready to pre-

vent alcohol, tobacco, and illicit drug use. Indicators of community readiness include norms, favorable attitudes, and restrictive policies. Studies of communities with a high degree of readiness for prevention may not be generalizable to all communities. For example, the ability to establish outdoor tobacco advertising restrictions would differ between California and North Carolina.

- *Generalizability*—Factors unique to a study make it difficult to generalize the findings to similar or general populations. For instance, a school-based intervention in a primarily urban setting for African-American students may not be generalizable to a suburban school setting with primarily refugee students.

BIBLIOGRAPHY

Campbell, D., & Stanley, J. (1996). *Experimental and quasi-experimental designs for research.* Chicago: Rand McNally.

Depression Guideline Panel. (1993, April). *Depression in primary care: Diagnosis and detection* (Vol. 1) (Clinical Practice Guideline No. 5, AHCPR Publication No. 93–0550). Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research.

Green, L. W., & Kreuter, M. W. (1991). *Health promotion planning: An educational and environmental approach.* Mountain View, CA: Mayfield Publishing.

Hayward, R. S., Steinberg, E. P., Ford, D. E., Roizen, M. F., & Roach, K. W. (1991). Preventive care guidelines: 1991. *Annals of Internal Medicine, 114,* 758–783.

Hill, A. B. (1971). *Principles of medical statistics* (9th ed., pp. 309–323). New York: Oxford University Press.

Kleinbaum, D. G., Kupper, L. L., & Morgenstern, H. (1982). *Epidemiological research: Principles and quantitative methods.* Belmont, CA: Lifetime Learning Publications.

Koepsell, T. D., Wagner, E. H., Cheadle, A. C., Patrick, D. L., Martin, D. C., Diehr, P. H., Perrin, E. B., Kristal, A. R., Allan-Andrilla, C. H., & Dey, L. J. (1992). Selected methodological issues in evaluating community-based health promotion and disease prevention programs. *Annual Review of Public Health, 13,* 31–57.

Windsor, R. A., Baranowski, T., Clark, N., & Cutter, G. (1984). *Evaluation of health promotion and education programs.* Mountain View, CA: Mayfield Publishing.

Appendix D: Collateral Areas of Interest

This appendix briefly discusses available knowledge and research for two family-oriented approaches that fall outside the scope of this guideline (see guideline introduction). This information may be helpful for those organizations and communities that would like to develop these family-centered approaches in tandem with the prevention approaches presented in this guideline. The approaches are

- *family-centered treatment* for adolescents who are already abusing substances (an area that falls outside the definition of prevention used in the guideline), and
- *home visiting*, an approach widely used for families with children aged 0 to 3 (an area that falls outside the age range for children addressed in this guideline).

A selected bibliography of key literature reviews and well-known intervention studies is included for each area.

FAMILY-CENTERED TREATMENT FOR ADOLESCENTS WHO ABUSE SUBSTANCES

Beginning in the 1980s, with strong assistance from the National Institute on Drug Abuse (NIDA), a small stream of studies examined family therapy and family-based interventions that specifically addressed the problem of adolescent substance abuse. These studies moved away from the traditional interpretation of adolescent development, which presented identification with peers following conflict with and rejection of family as frequent and sometimes necessary elements of adolescent development.

Researchers now believe the desired course of adolescent development is a positive interdependence with, rather than a separation from, family as adolescents learn the roles and tasks of adulthood (Liddle & Diamond, 1991; Steinberg, 1990). The family is not just a reactional field on which adolescent development is played out, but a proactive resource and protective factor for successful movement toward adulthood. In particular, families can play a role in protecting the adolescent from succumbing to peer influences to engage in substance abuse (Hauser et al., 1984, 1985; Liddle & Diamond, 1991).

Trends Within the Research

Several different types of family therapy are addressed in this research. Some therapies focus directly on improving family systems, such as communication, interactional patterns, and parenting behavior and management (Lewis, Piercy, Sprenkle, & Trepper, 1990a; Piercy & Frankel, 1989), whereas others focus on interactions among the adolescent, the family, and the larger contexts of school and community within which the family resides (Liddle & Dakof, 1995a).

Researchers have found that family interventions can engage and retain families and adolescents in treatment. These interventions have also resulted in significant reductions in substance abuse by adolescents. Other outcomes of family therapy interventions include reducing adolescent problem behaviors related to substance abuse while improving adolescent prosocial behavior. However, the evidence for these outcomes is only suggestive. Studies designed to achieve these outcomes are few, and difficulties exist with their research methodologies and consistency of findings (Liddle & Dakof, 1995b; Piercy & Frankel, 1989; Szapocznik et al., 1988).

Finally, recent studies have expanded the focus of research to include all the contexts within which the adolescent and the family exist. This integrated approach draws on the interactions with and influences of the entire ecological environment of the family and substance-abusing adolescent, giving weight to the intra- and interpersonal dimensions of both the adolescent and the family. These studies include the influences of education, child and adult welfare, law enforcement, the courts, and health care (Hawkins, Catalano, & Miller, 1992; Liddle & Dakof, 1995a; Newcomb & Feliz-Ortiz, 1992).

Areas for Further Research

Although a promising body of research is developing in family-centered treatment of adolescent substance abuse, the number and depth of coverage of these studies are still limited. Many studies have flawed methodologies, such as no comparison group and small numbers of subjects, and do not use terms and definitions that permit cross-comparisons of study findings. This is particularly true of methodologies that

establish the level and types of substances used (Liddle & Dakof, 1995b; Joanning, Quinn, Thomas, & Mullen, 1992).

In addition, cost-benefit analyses of different treatment strategies have not been conducted, although it seems obvious that the more comprehensive and integrated a treatment intervention is, the more costs it will incur. It is unclear at this time whether the margin of improvement obtained from a more expensive treatment justifies the cost of carrying it out (Liddle & Dakof, 1995b).

HOME VISITING FOR CHILDREN AGED 0 TO 3

Many practitioners are interested in interventions and approaches for families with infants and toddlers or pregnant women. Although the connection with later adolescent substance abuse may be unknown, research and practice recognizes that the time of a child's birth may present a unique opportunity to positively affect the mother's view of herself and her child, as well as the family environment in which the child will be nurtured (Erickson, Korfmacher, & Egeland, 1992). There is also some evidence that the degree to which an infant or toddler attains appropriate social competence, developed through interactions with parents, is an important childhood developmental factor (Hans, Bernstein, & Percensky, 1991).

For practitioners interested in developing prevention interventions for families with children aged 0 to 3 years (i.e., the prenatal period through toddlerhood), this section briefly describes the approach of home visiting—a family-centered approach widely used for very early intervention. This section describes the types of families best served by home visiting, the interventions and strategies home visiting employs, the evidence for various outcomes, and relevant program and evaluation issues.

Types of Families Served by Home Visiting

The home and immediate family environment are the entire world of an infant, who is totally dependent on the caregiving of parents and is relatively sheltered from wider interaction with those who might recognize problems or needs for extra support. Thus, home visiting is used primarily as an intervention for improving prenatal care; preparing teenage or new parents; assisting parents with special challenges, such as disabled or developmentally delayed children or low-birth-weight or preterm births; and supporting parents who are at high risk for inadequate parenting or child abuse and neglect or who have a number of risk factors associated with low socioeconomic status. Although home visiting could be implemented as a universal preventive measure, researchers generally agree that it is more appropriate as a selective or indicated preventive measure.

Types of Interventions

Home visiting interventions can address the following special issues of families with infants or families expecting newborns:

- Improving parenting behavior through coaching of enhanced parent-infant interactions or providing parent training (Erickson et al., 1992; Olds & Kitzman, 1993; Patteson & Barnard, 1990).
- Providing formal or informal social support through activities such as liaison with community services, parent support groups, or individually tailored interactions that help families develop specific capacities (Olds & Kitzman, 1993; Roberts & Wasik, 1990).
- Improving the life course development of mothers (very few interventions address needs of fathers) by helping them prepare and find ways to address their aspirations and skills for improving health, education, employment, and family management (Olds & Kitzman, 1993).

Some interventions begin with hospital coaching of parent-child interactions and continue with home visiting, and some only involve one strategy or the other. Some involve frequent home visits over an extended period of months or years, and others involve only a few visits for 3 to 4 months. Some use professionals such as nurses, social workers, or highly trained researchers; others rely on paraprofessionals.

Outcomes

The general consensus of a number of literature reviews completed between 1988 and 1994 is that there have been modest, short-term positive effects from most types of home visiting interventions, especially for families who are clearly at risk. These positive effects include the following:

- Improvements have been noted with maltreating mothers in child-rearing skills (Wekerle & Wolfe, 1993). However, none of the interventions appears to have decreased maltreatment as documented in Child Protective Service records (Olds & Kitzman, 1993).
- Decreases in the use of the health care system and emergency room service for children from maltreating families are possible collateral evidence of reduction in maltreatment (Olds & Kitzman, 1993).
- Modest short-term child cognitive benefits have been noted when the parent receives and completes instruction in child development or management (Wekerle & Wolfe, 1993).
- Improvements have been noted in parenting premature infants from disadvantaged backgrounds, especially when a hospital-based intervention is combined with home visiting, or when a hospital-based parenting intervention

stresses parent involvement in the hospital care of the infant (Zahr, 1994; Patteson and Barnard, 1990).

However, since the literature reviews examined different types of interventions, used varying criteria for including and excluding studies, and exhibited other methodological problems, practitioners should be aware of the following in considering this approach:

- Home visiting does not appear to show much effect with families from universal populations, although there has been some exploration of using the approach on a short-term, low-intensity basis for all families in a nonrisk population (Wekerle & Wolfe, 1993).
- There is still very little evidence that the approach has long-term effectiveness, in part because longitudinal studies have not been conducted beyond 1 or 2 years (Sandall, 1990; Olds & Kitzman, 1993; Wekerle & Wolfe, 1993).
- For home visiting to be a successful intervention, it must be intensive and occur over a significant period of time. Although researchers use different definitions of these elements, they generally agree that the intervention should include several months of weekly visits. Many researchers believe that the decision about intervention intensity and duration must be made in relationship to the circumstances of each family, and intervention could continue for up to 2 years (Wekerle & Wolfe, 1993; Olds & Kitzman, 1993).
- Several researchers document findings in the literature that indicate home visiting programs must also be comprehensive in focus; include parenting, social support, and health interventions; and be staffed by well-trained professionals (Olds & Kitzman, 1993; Heinicke, Beckwith, & Thompson, 1988).
- Cognitive gain of children is a weak and unreliable measure to determine impact of home visiting on infants. It ignores environmental impacts on infants' cognitive and social development, and does not accurately predict future development (Hans et al., 1991). At least one researcher indicates that home visiting must be accompanied by a center-based component to have positive influences on the infant (Ramey, Bryant, & Suarez, 1985).
- Although home visiting has been successfully used with families of developmentally disabled infants, few studies have documented positive results (Olds & Kitzman, 1993).
- Most of the intervention studies have been carried out with White mothers. Few studies have included fathers (Wekerle & Wolfe, 1993) or examined other ethnic groups (Zahr, 1994).

Program and Evaluation Issues Needing Further Exploration

A number of researchers note that the home visiting approach is like the proverbial "black box," the inside of which still remains somewhat of a mystery. There is a

strong need for further research to examine which types of home visiting work for different families, what is the needed duration and intensity of interventions to achieve positive results, what combination and elements of services are needed, and what are the long-term effects.

Evaluations of home visiting programs have been hampered by the same issues as other approaches presented in this guideline—e.g., the use of control or comparison groups that may exclude high-risk families who need services and a failure to examine the dynamics and effects of attrition. Further, in examining the effects of home visiting on families involved in child maltreatment, varying definitions of child abuse and neglect and varying legal requirements for reporting can make research difficult.

A number of researchers observed the need for more process evaluation of interventions, looking at effects related to varying strategies for delivering the intervention and effects related to who delivers the intervention (Wekerle & Wolfe, 1993; Patteson & Barnard, 1990; Olds & Kitzman, 1993).

Because of the extensive number of literature reviews and documented interventions addressing a broad spectrum of populations, the home visiting approach is promising. However, practitioners should review the literature carefully before using this approach to ensure they fully understand what can be accomplished and under what circumstances. They also will have to make a "leap of faith" in promoting the approach as one that can have subsequent positive effects on reducing adolescent substance abuse. The primary linkage, that improving the social competence of infants and toddlers is a required prelude to the development of social competence in older children, although intuitively sensible, has yet to be made.

REFERENCES

Family-Centered Treatment for Adolescents Who Abuse Substances

Hauser, S. T., Liebman, W., Houlihan, J., Powers, S. I., Jacobson, A. M., Noam, G. G., Weiss, B., & Follansbee, D. (1985). Family contexts of pubertal timing. *Journal of Youth and Adolescence, 14*, 317–337.

Hauser, S. T., Powers, S., Noam, G. G., Jacobson, A. M., Weiss, G., & Follansbee, D. J. (1984). Family context of adolescent ego development. *Child Development, 55*, 195–213.

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*, 64–105.

Joanning, H., Quinn, W., Thomas, F., & Mullen, R. (1992). Treating adolescent drug abuse: A comparison of family system therapy, group therapy and family drug education. *Journal of Marital and Family Therapy, 18*, 345–356.

Lewis, R. A., Piercy, F. P., Sprenkle, D. H., & Trepper, T. S. (1990a). Family-based interventions for helping drug-abusing adolescents. *Journal of Adolescent Research, 5*(1), 82–95.

Liddle, H. A., & Dakof, G. A. (1995a). Family-based treatment for adolescent drug use: State of the science. In E. Rahdert, & Czechowicz (Eds.), *Adolescent drug abuse: Clinical assessment and therapeutic interventions* (NIDA Research Monograph No. 156, NIH Publication No. 95–3908, pp. 218–259). Rockville, MD: National Institute on Drug Abuse.

Liddle, H. A., & Dakof, G. A. (1995b). Efficacy of family therapy for drug abuse: Promising but not definitive. *Journal of Marital and Family Therapy, 21*(4), 511–543.

Liddle, H. A., & Diamond, G. (1991). Adolescent substance abusers in family therapy: The critical initial phase of treatment. *Family Dynamics Addiction Quarterly, 1*(1), 55–68.

Newcomb, M. D., & Feliz-Ortiz, M. (1992). Multiple protective and risk factors for drug use and abuse: Cross-sectional and prospective findings. *Journal of Personality and Social Psychology, 63*, 280–296.

Piercy, F. P., & Frankel, G. R. (1989). The evolution of an integrative family therapy for substance-abusing adolescents: Toward the mutual enhancement of research and practice. *Journal of Family Psychology, 3*(1), 5–25.

Steinberg, L. (1990). Autonomy, conflict and harmony in the family relationships. In S. S. Feldman, & G. R. Elliott (Eds.), *At the threshold: The developing adolescent.* Cambridge, MA: Harvard University Press.

Szapocznik, J., Perez-Vidal, A., Brickman A. L., Foote, F. H., Santisteban, D., Hervis, O., & Kurtines, W. (1988). Engaging adolescent drug abusers and their families in treatment: A strategic structural systems approach. *Journal of Consulting and Clinical Psychology, 56*, 552–557.

Home Visiting for Children Aged 0 to 3

Erickson, M. F., Korfmacher, J., & Egeland, B. R. (1992). Attachments past and present: Implications for therapeutic intervention with mother-infant dyads. *Development and Psychopathology, 4*(4), 495–507.

Hans, S. L., Bernstein, V. J., & Percensky, C. (1991). Adolescent parenting programs: Assessing parent-infant interaction. *Evaluation and Program Planning, 14*, 87–95.

Heinicke, C. M., Beckwith, L., & Thompson, A. (1988). Early intervention in the family system: A framework and review. *Infant Mental Health Journal, 9*(2), 111–141.

Olds, D. L., & Kitzman, H. (1993). Review of research on home visiting for pregnant women and parents of young children. *The Future of Children, 3*(3), 53–92.

Patteson, D. M., & Barnard, K. E. (1990). Parenting of low birth weight infants: A review of issues and interventions. *Infant Mental Health Journal, 11*(1), 37–56.

Ramey, C., Bryant, D., & Suarez, T. (1985). Preschool compensatory education and the modifiability of intelligence: A critical review. In D. Detterman (Ed.), *Current topics in human intelligence* (pp. 247–296). Norwood, NJ: Ablex.

Roberts, R. N., & Wasik, B. H. (1990). Home visiting programs for families with children birth to three: Results of a national survey [Special issue: Families]. *Journal of Early Intervention, 14*(3), 274–284.

Sandall, S. R. (1990). Developmental interventions for biologically at-risk infants at home. *Topics in Early Childhood Special Education, 10*(4), 1–13.

Wekerle, C., & Wolfe, D. A. (1993). Prevention of child physical abuse and neglect: Promising new directions. *Clinical Psychology Review, 13*(6), 501–540.

Zahr, L. (1994). An integrative research review of intervention studies with premature infants from disadvantaged backgrounds. *Maternal Child Nursing Journal, 22*(3), 90–101.

ADDITIONAL SOURCES

Family-Centered Treatment for Adolescents Who Abuse Subtances

Catalano, R. F., Morrison, D. M., Wells, E. A., Gillmore, M. R., Iritani, B., & Hawkins, J. D. (1992). *Journal of Studies on Alcohol, 53*(3), 208–217.

Conger, R. D., Lorenz, F. O., Elder, G. H., Jr., Melby, J. N., Simons, R. L., & Conger, K. J. (1991). A process model of family economic pressure and early adolescent alcohol use. *Journal of Early Adolescence, 11*(4), 430–449.

Cox, R. B., Jr., & Ray, W. A. (1994). The role of theory in treating adolescent substance abuse. *Contemporary Family Therapy, 16*(2), 131–144.

Dishion, T. J., Reid, J. B., & Patterson, G. R. (1988). Empirical guidelines for a family intervention for adolescent drug use. *Journal of Chemical Dependency Treatment, 1*(2), 189–224.

Erikson, E. H. (1968). *Identity: Youth and crisis.* New York: Norton.

Friedman, A. S. (1989). Family therapy vs. parent groups: Effects on adolescent drug abusers. *The American Journal of Family Therapy, 17*(4), 335–347.

Friedman, A. S., & Utada, A. (1992). The family environments of adolescent drug abusers. *Family Dynamics Addiction Quarterly, 2*(2), 32–45.

Friedman, A. S., Tomko, L. A., & Utada, A. (1991). Client and family characteristics that predict better family therapy outcomes for adolescent drug abusers. *Family Dynamics Addiction Quarterly, 1*(1), 77–93.

Freud, A. (1958). Adolescence. *Psychoanalytic Study of the Child, 13*, 255–278.

Glynn, T. J., & Haenlein, M. (1988). Family theory and research on adolescent drug use: A review. *Journal of Chemical Dependency and Treatment, 1*(2), 39–56.

Hill, J. P. (1980). The family. In M. Johnson, & K. J. Rehage (Eds.), *Toward adolescence: The middle school years* (Part 1). Chicago: University of Chicago Press.

Johnson, V., & Pandina, R. J. (1991). Effects of the family environment on adolescent substance use, delinquency, and coping styles. *American Journal of Drug and Alcohol Abuse, 17*(1), 71–88.

Lewis, R. A., Piercy, F. P., Sprenkle, D. H., & Trepper, T. S. (1990b). The Purdue brief family therapy model for adolescent substance abusers. In T. Todd, & M. Selekman (Eds.), *Family therapy with adolescent substance abusers* (pp. 82–95). New York: Allyn and Bacon.

Liddle, H. A., & Dakof, G. A. (1994). *Multidimensional family therapy of adolescent substance abuse.* Paper presented at the meeting of the Society for Psychotherapy Research, Sante Fe, NM.

Newcomb, M. D., & Bentler, P. M. (1988). *Consequences of adolescent drug use: Impact on the lives of young adults.* Newbury Park, CA: Sage.

Santisteban, D. A., Szapocznik, J., Perez-Vidal, A., Kurtines, W. M., Murray, E. J., & LaPirriere, A. (in press). Engaging behavior problem drug abusing youth and their families into treatment: An investigation of the efficacy of specialized engagement interventions and factors that contribute to differential effectiveness. *Journal of Family Psychology.*

Schmidt, S. E., Liddle, H. A., & Dakof, G. A. (1996). Multidimensional family therapy: Parenting practices and symptom reduction in adolescent substance abuse. *Journal of Family Psychology, 10*, 12–27.

Searight, H. R., Manley, C. M., Binder, A. F., Krohn, E., Rogers, B. J., & Russo, J. R. (1991). The families of origin of adolescent drug abusers: Perceived autonomy and intimacy. *Contemporary Family Therapy, 13*(1), 71–81.

Simons, R. L., Whitbeck, L. B., Conger, R. D., & Melby, J. N. (1991). The effect of social skills, values, peers, and depression on adolescent substance use. *Journal of Early Adolescence, 11*(4), 466–481.

Stanton, M. D., Todd, T. C., & Associates. (1982). *The family therapy of drug abuse and addiction.* New York: Guilford.

Szapocznik, J., Kurtines, W. M., Foote, F. H., Perez-Vidal, A., & Hervis, O. (1986). Cojoint versus one person family therapy: Further evidence for the effectiveness of conducting family therapy through one person with drug-abusing adolescents. *Journal of Consulting and Clinical Psychology, 54,* 395–397.

Todd, T. C., & Selekman, M. (1989). Principles of family therapy for adolescent substance abuse. *Journal of Psychotherapy and the Family, 6*(3–4), 49–70.

Home Visiting for Children Aged 0 to 3

Achenbach, R. M., Phares, V., Howell, C. T., Rauth, V. A., & Nurcombe, B. (1990). Seven-year outcome of the Vermont intervention program for low-birthweight infants. *Child Development, 61,* 1672–1681.

Atkins, M. (1986). The Welcome Baby Program: A community-based volunteer prevention model of caring, sharing and support for new parents. *Infant Mental Health Journal, 7*(2), 156–167.

Barrera, M. E., Kitching, K. J., Cunningham, C. C., Doucet, D., & Rosenbaum, P. L. (1990). A 3-year early home intervention follow-up study with low birthweight infants and their parents. *Topics in Early Childhood Special Education, 10*(4), 14–28.

Booth, C. L., Mitchell, S. K., Barnard, K. E., & Spieker, S. J. (1989). Development of maternal social skills in multiproblem families: Effects on the mother-child relationship. *Developmental Psychology, 25*(3), 403–412.

Brooks-Gunn, J., Klebanov, P. K., Liaw, F., & Spiker, D. (1993). Enhancing the development of low-birthweight, premature infants: Changes in cognition and behavior over the first three years. *Child Development, 64,* 736–753.

Casto, G., & White, K. (1985). The efficacy of early intervention programs with environmentally at risk infants. *Journal of Children in Contemporary Society, 17*(1–3), 37–50.

Dudley, M., Gyler, L., Blinkhorn, S., & Barnett, B. (1993). Psychological interventions for very low birthweight infants: Their scope and efficacy. *Australian and New Zealand Journal of Psychiatry, 27*(1), 74–83.

Edelstein, S., Kropenske, V., & Howard, J. (1990). Project T.E.A.M.S. *Social Work, 35*(4), 313–318.

Field, T. (1982). Interaction coaching for high-risk infants and their parents. In H. A. Moss, R. Hess, & C. Swift (Eds.), *Early intervention program for infants* (pp. 5–25). New York: Haworth Press.

Greenberg, R. A., Strecher, V. J., Bauman, K. E., Boat, B. W., Fowler, M. G., Keyes, L. L., Denny, F. W., Chapman, R. S., Stedman, H. C., LaVange, L. M., Glover, L. H., Haley, N. J., & Loda, F. A. (1994). Evaluation of a home-based intervention program to reduce infant passive smoking and lower respiratory illness. *Journal of Behavioral Medicine, 17*(3), 273–296.

Gross, R. T. (1990). A multisite randomized intervention trial for premature, low birthweight infants: The Infant Health and Development Program. In D. E. Rogers, & E. Ginzberg (Eds.), *Improving the life chances of children at risk* (pp. 146–161). Boulder, CO: Westview Press.

Korner, A. F. (1987). Preventive intervention with high-risk newborns: Theoretical, conceptual and methodological perspectives. In J. D. Osofsky (Ed.), *The handbook of infant development* (2nd ed., pp. 1006–1036). New York: John Wiley.

Lally, J. R., Mangione, P. L., & Honig, A. S. (1988). The Syracuse University Family Development Research Program: Long-range impact on an early intervention with low-income children and their families. In D. R. Powell, & I. E. Sigel (Eds.), *Parent education as early childhood intervention: Emerging directions in theory, research and practice* (pp. 79–104). Norwood, NJ: Ablex Publishing.

Lutzker, J. R. (1990). Behavior treatment of child neglect [Special issue: Child abuse and neglect]. *Behavior Modification, 14*(3), 301–315.

Lutzker, S. Z., Braunling-McMorrow, C., Lutzker, J. R., & Eddleman, J. (1987). Prompting to increase mother-baby stimulation with single mothers. *Journal of Child and Adolescent Psychotherapy, 4*(1), 3–11.

Olds, D. L., Henderson C. R., Jr., Chamberlin, R., & Tatelbaum, R. (1986). Preventing child abuse and neglect: A randomized trial of nurse home visitation. *Pediatrics, 78*(1), 65–78.

Olds, D. L., Henderson, C. R., & Kitzman, H. (1994). Does prenatal and infancy nurse home visitation have enduring effects on qualities of parental caregiving and child health at 25–50 months of life? *Pediatrics, 93*(1), 89–97.

Olds, D., Henderson, C. R., Jr., Kitzman, H., & Cole, R. (1995). Effects of prenatal and infancy nurse home visitation on surveillance of child maltreatment. *Pediatrics, 95*(3), 365–372.

Olds, D. L., Henderson, C. R., Jr., Phelps, C., Kitzman, H., & Hanks, C. (1993). Effect of prenatal and infancy nurse home visitation on government spending. *Medical Care, 31*(2), 155–173.

Olds, D. L., Henderson, C. R., Jr., & Tatelbaum, R. (1994). Intellectual impairment in children of women who smoke cigarettes during pregnancy. *Pediatrics, 93*(2), 228–233.

Olds, D. L., Henderson, C. R., Jr., Tatelbaum, R., & Chamberlin, R. (1986). Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation. *Pediatrics, 77*(1), 16–20.

Olds, D. L., Henderson C. R., Jr., Tatelbaum, R., & Chamberlin, R. (1988). Improving the life-course development of socially disadvantaged mothers: A randomized trial of nurse home visitation. *American Journal of Public Health, 78*(11), 1436–1445.

Olds, D. L., & Kitzman, H. (1990). Can home visitation improve the health of women and children at environmental risk? *Pediatrics, 86*(1), 108–116.

Palkovitz, R. (1984). Parental attitudes and father's interactions with their 5-month-old infants. *Developmental Psychology, 20*(6), 1054–1060.

Parker, S., Greer, S., & Zuckerman, B. (1988). Double jeopardy: The impact of poverty on early childhood development. *Pediatric Clinics of North America, 35*(6), 1227–1240.

Ramey, C. T., Bryant, D. M., Wasik, B. H., Sparling J. J., Fendt, K. H., & LaVange, L. M. (1992). Infant health and development program for low birth weight, premature infants: Program elements, family participation and child intelligence. *Pediatrics, 3*, 454–465.

Rauh, V. A., Achenbach, R. M., Nurcombe, B., Howell, C. T., & Teti, D. M. (1988). Minimizing adverse effects of low birthweight: Four-year results of an early intervention. *Child Development, 59*, 544–552.

Resnick, M. B.: Armstrong, S., & Carter, R. L. (1988). Developmental intervention program for high-risk premature infants: Effects on development and parent-infant interactions. *Developmental and Behavioral Pediatrics, 9*(2), 73–78.

Wasik, B. H., Ramey C. T., Bryant, D. M., & Sparling, J. J. (1990). A longitudinal study of two early intervention strategies: Project CARE. *Child Development, 61*, 1682–1696.

Widerstrom, A. H., Mower, B. A., & Sandall, S. R. (1991). *At-risk and handicapped newborns and infants: Development, assessment, and intervention.* Englewood Cliffs, NJ: Prentice-Hall.

Wolfe, D. A., & Wekerle, C. (1993). Treatment strategies for child physical abuse and neglect: A critical progress report. *Clinical Psychology Review, 13*(6), 473–500.

Appendix E: Abbreviations and Glossary

ABBREVIATIONS AND ACRONYMS

ACOG	American College of Obstetricians and Gynecologists
ADHD	attention deficit hyperactivity disorder
AFDC	Aid to Families with Dependent Children
AHCPR	Agency for Health Care Policy and Research
AIDS	acquired immunodeficiency syndrome
AODs	alcohol and other drugs
ATP	Adolescent Transitions program
BET	bicultural effectiveness training
CAPS	communication and parenting skills
CDC	Centers for Disease Control and Prevention
COSSMHO	National Coalition of Hispanic Health and Human Services Organizations
CSAP	Center for Substance Abuse Prevention
CSAT	Center for Substance Abuse Treatment
DHHS	U.S. Department of Health and Human Services
FAST	Families and Schools Together

FET	family effectiveness training
FFT	functional family therapy
GDVM	Group Discussion–Oriented Basic Parent Skills Training program
HIV	human immunodeficiency virus
HPV	human papilloma virus
IVM	individually self-administered videotaped modeling (treatment)
IVMC	IVM treatment plus therapist consultation
LSD	lysergic acid diethylamide
MDMA	3-4-methylenedioxymethamphetamine
MST	multisystemic therapy
NCHS	National Center for Health Statistics
NHIS	National Health Interview Survey
NHSDA	National Household Survey on Drug Abuse
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIDA	National Institute on Drug Abuse
NPHS	National Pregnancy and Health Survey
NPN	National Prevention Network
ONDCP	Office of National Drug Control Policy
OSAP	Office for Substance Abuse Prevention (now CSAP)
PCP	phencyclidine
PDFY	Preparing for the Drug (Free) Years
PEPS	Prevention Enhancement Protocols System
PHS	Public Health Service
PSST	problem-solving skills training
SAMHSA	Substance Abuse and Mental Health Services Administration

SFT	structural family therapy
SSA	Single State Agency (State Substance Abuse Agency)
STD	sexually transmitted disease
TIP	Treatment Improvement Protocol
TOT	Training of Trainers
YRBSS	Youth Risk Behavior Surveillance System

GLOSSARY

Adjustment disorder—a behavior-related disorder in which a person exhibits clinically significant emotional or behavioral symptoms in response to a psychosocial stressor. Includes distress in excess of expectations or significant impairment in social or academic functioning. *See* attention deficit hyperactivity disorder, conduct disorder, and oppositional defiant disorder.

Antisocial and other problem behaviors—can describe behavior-related problems (e.g., poor conduct and impulsiveness), behavior-related disorders (e.g., attention deficit hyperactivity disorder), or both.

Assignment—the process by which researchers place study subjects in an intervention, control, or comparison group. Experimental design studies randomly assign study subjects to both intervention and control conditions. Quasi-experimental studies nonrandomly assign study subjects to intervention and comparison conditions. Random assignment increases the likelihood that the intervention and control groups are equal or comparable and have similar characteristics.

Attention deficit hyperactivity disorder (ADHD)—a behavior-related disorder in which there is a persistent pattern of inattention and/or hyperactivity and impulsivity. *See* adjustment disorder, conduct disorder, and oppositional defiant disorder.

Attrition—an unplanned reduction in the size of the study sample resulting from participants dropping out of the evaluation, because of relocation, for example.

Behavioral factor—a certain pattern of conduct that may be associated with substance abuse-related attitudes or behavior. Most prominent in substance abuse prevention efforts are behavioral factors that lead to the perception of substance use or related conditions as functional or appropriate. *See* environmental factor, personal factor, and sociodemographic factor.

Behavior-related disorder—a specific behavioral problem that occurs in persistent patterns and characteristic clusters and causes clinically significant impairment. *See* behavior-related problem.

Behavior-related problem—a behavioral problem that is isolated or intermittent and is not part of a persistent behavior pattern and that varies in severity and seriousness of its consequences. *See* behavior-related disorder.

Bias—the extent to which a measurement, sampling, or analytic method systematically underestimates or overestimates the true value of an attribute. In general, biases are sources of systematic errors that arise from faulty designs, poor data collection procedures, or inadequate analyses. These errors diminish the likelihood that observed outcomes are attributable to the intervention.

Case study—a method for learning about a complex instance, based on a comprehensive understanding of that instance, obtained by extensive description and analysis of the instance, taken as a whole and in its context.

Community—a group of individuals who share cultural and social experiences within a common geographic or political jurisdiction.

Community-based approach—a prevention approach that focuses on the problems or needs of an entire community, including large cities, small towns, schools, work sites, and public places. *See* individual-centered approach.

Community readiness—the degree of support for or resistance to identifying substance use and abuse as significant social problems in the community. Stages of community readiness for prevention provide an appropriate framework for understanding prevention readiness at the community or State level. *See* community tolerance, confirmation/expansion, denial, initiation, institutionalization, preparation, preplanning, professionalization, and vague awareness.

Community tolerance—is present when community norms actively encourage problematic behavior, which is viewed as socially acceptable. *See* community readiness.

Comparison group—in quasi-experimental evaluation design, a group of evaluation participants that is not exposed to the intervention. This term usually implies that participants are *not* randomly assigned, but have characteristics similar to the intervention group. *See* control group.

Conceptual framework—in this guideline, the philosophical basis for a prevention approach. Specifically, the assumed reasons or hypotheses that explain why the interventions in a specific prevention approach should work.

Conduct disorder—a behavior-related disorder that has a repetitive and persistent pattern of violating the basic rights of others or major age-appropriate societal norms or rules. The disorder can include aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules. *See* adjustment disorder, attention deficit hyperactivity disorder, and oppositional defiant disorder.

Confirmation/expansion—the stage in which existing prevention programs are viewed as effective and authorities support expansion or improvement of the efforts. Data are routinely collected at this stage, and there is a clear understanding of the local problem and the risk factors for the problem. New programs are being planned to reach other community members at this stage. *See* community readiness.

Construct—an attribute, usually unobservable, such as educational attainment or socioeconomic status that is represented by an observable measure.

Contextualism—is a theory that all behavior must be understood within the context of its occurrence. Context is broadly defined to include transactions not only between a person and his or her immediate environment, but also between and among the individual and the domains of family, school, peers, community, and the larger societal or global environment. Contextualism examines adolescent substance abuse within embedded contexts, such as family conflicts "nested" within the context of the family's culture. *See* developmental pathways model, social development model, and social ecology model.

Control group—in experimental evaluation design, a group of participants that is essentially similar to the intervention group but is not exposed to the intervention. Participants are designated to be part of either a control or intervention group through random assignment. *See* comparison group.

Conventional primary prevention—substance abuse prevention approaches that focus on deterring initial use. *See* conventional secondary prevention.

Conventional secondary prevention—psychology-based substance abuse prevention approaches that encourage people to stop. *See* conventional primary prevention.

Correlational analysis—a form of relational analysis that assesses the strength and direction of association between variables.

Cross-sectional design—a research design that involves the collection of data on a sample of the population at a single point in time. When exposure and health status data are collected, measures of associations between them are easily computed. However, because health status and exposure are measured simultaneously, inferences cannot be made that the exposure causes the health status.

Data—information collected according to a methodology using specific research methods and instruments.

Data analysis—the process of examining systematically collected information.

Denial—the stage in which a behavior is not usually approved of according to community norms. At this stage, people are aware that the behavior is a problem but believe that nothing needs to or can be done about the behavior at a local level. *See* community readiness.

Design—often referred to as research or study design, this is an outline or plan of the procedures to be followed in scientific experimentation to reach valid conclusions. *See* experimental design, nonexperimental design, and quasi-experimental design.

Designer drug—a synthetic analogue of a controlled substance manufactured illegally for the specific purpose of abuse. Designer drugs are created by making minor changes in the molecular structure of substances such as amphetamines.

Developmental pathways model—a model that argues that the presence of certain risk factors in a child's life, whether individual, familial, or social in nature, can predispose him or her to engage in negative behaviors, which in turn may lead to additional adverse events and circumstances and further counterproductive and disadvantageous interactions. *See* contextualism, social development model, and social ecology model.

Dual diagnosis—a term used to describe the phenomenon of coexisting psychiatric and substance abuse disorders.

Effect—a result, impact, or outcome. In evaluation research, attributing an effect to a program or intervention requires establishing, through comparison, a logical relationship between conditions with and without the program or intervention.

Effectiveness—the degree to which a prevention approach or intervention achieves specified objectives or outcomes. *See* efficacy evaluation and effectiveness evaluation.

Effectiveness evaluation—assesses an intervention under practice conditions—typically, the implementation of an intervention in the field. *See* effectiveness and efficacy evaluation.

Efficacy evaluation—used when an intervention is assessed under optimal program conditions—usually a well-funded project conducted by researchers. *See* effectiveness and effectiveness evaluation.

Environmental factor—a factor that is external or is perceived to be external to an individual but that may nonetheless affect his or her behavior. A number of these factors are related to the individual's family of origin, while others have to do with social norms and expectations. *See* behavioral factor, personal factor, and sociodemographic factor.

Experimental design—a research design that includes random selection of study subjects, an intervention and a control group, random assignment to the groups, and measurements of both groups. Measurements are typically conducted prior to and always after the intervention. The results obtained from these studies typically yield the most interpretable, definitive, and defensible evidence of effectiveness. *See* design, nonexperimental design, pre-post test, and quasi-experimental design.

External validity—the extent to which outcomes and findings apply (or can be generalized) to persons, objects, settings, or times other than those that were the subject of the study. *See* validity.

Family—parents (or persons serving as parents) and children who are related either through biology or through assignment of guardianship, whether formally (by law) or informally, who are actively involved together in family life—sharing a social network, material and emotional resources, and sources of support.

Family in-home support—a prevention approach that addresses risk and protective factors by focusing on preserving families through intervention in their home environments. *See* family therapy and parent and family skills training.

Family support—a proactive construct that views parenting as a developmentally learned task for all families and affirms that strategies for delivering family services should be rooted in a community support system. *See* resilience.

Family therapy—a prevention approach that provides professionally led counseling services to a family for the purpose of decreasing maladaptive family functioning and negative behaviors and increasing skills for healthy family interaction. *See* family in-home support and parent and family skills training.

Focus group—a qualitative research method consisting of a structured discussion among a small group of people with shared characteristics. Focus groups are designed to identify perceptions and opinions about a specific issue. They can be used to elicit feedback from target group subjects about prevention strategies.

Formative evaluation—a process that is concerned with helping the developer of programs or products through the use of empirical research methodology. Also called feedback evaluation.

Fugitive literature—articles or materials of a scientific or academic nature that are typically unpublished, informally published, or not readily available to the scientific community, such as internal reports and unpublished manuscripts. In this guideline, some practice cases are considered fugitive literature.

Gateway hypothesis—a hypothesis stating that the use of alcohol and tobacco at an early age is associated with progression to illicit drug use and greater involvement with drugs at older ages.

Heavy drinker—a person who consumes 2 or more alcoholic beverages per day or 14 or more alcoholic beverages per week.

Incidence—the number of new cases of a disease or occurrences of an event in a particular period of time, usually expressed as a rate with the number of cases as the numerator and the population at risk as the denominator. Incidence rates are often presented in standard terms, such as the number of new cases per 100,000 population. *See* prevalence.

Indicated preventive measure—a preventive measure directed to specific individuals with known, identified risk factors. *See* preventive measure, selective preventive measure, and universal preventive measure.

Individual-centered approach—a prevention approach that focuses on the problems and needs of the individual. *See* community-based approach.

Initiation—the stage in which a prevention program is under way but still "on trial." Community members often have great enthusiasm for the effort at this stage because obstacles have not yet been encountered. *See* community readiness.

Institutionalization—occurs when several programs are supported by local or State governments with established (but not permanent) funding. Although the program is accepted as a routine and valuable practice at this stage, there is little perceived need for change or expansion of the effort. *See* community readiness.

Instrument—a device that assists evaluators in collecting data in an organized fashion, such as a standardized survey or interview protocol. *See* methodology.

Intermediate outcome—an intervention outcome, such as changes in knowledge, attitudes, or beliefs, that occurs prior to and is assumed to be necessary for changes in an ultimate or long-term outcome, such as prevention of or decreases in substance use and substance-related problems.

Internal validity—the ability to make inferences about whether the relationship between variables is causal in nature and, if it is, the direction of causality.

Intervention—a manipulation applied to a group in order to change behavior. In substance abuse prevention, interventions at the individual or environmental level may be used to prevent or lower the rate of substance abuse or substance abuse-related problems.

Intended measurable outcome—in this guideline, the overall expected consequences and results of the interventions within each prevention approach.

Lesson learned—in this guideline, a conclusion that can be reached about a specific prevention approach, based on research and practice evidence reviewed to evaluate that prevention approach.

Longitudinal data—observations collected over a period of time; the sample may or may not be the same each time (sometimes called "time-series data").

Maturation effect—a change in outcome attributable to participants' growing older, wiser, stronger, more experienced, and the like, solely through the passage of time.

Mean—the arithmetic average of a set of numeric values.

Methodology—a procedure for collecting data. *See* instrument.

Multicomponent program—a prevention approach that simultaneously uses multiple interventions that target one or more substance abuse problems. Programs that involve coordinated multiple interventions are likely to be more effective in achieving desired goals than single-component programs and programs that involve multiple but uncoordinated interventions. *See* single-component program.

Multivariate—an experimental design or correlational analysis consisting of many dependent variables. *See* variable.

Nonexperimental design—a type of research design that does not include random assignment or a control group. With such research designs, several factors prevent the attribution of an observed effect to the intervention. *See* design, experimental design, pre-post test, and quasi-experimental design.

Oppositional defiant disorder—a behavior-related disorder showing a recurrent pattern of negative, defiant, disobedient, and hostile behavior toward authority figures. Includes some features of conduct disorder, but does not include the persistent pattern of violating the rights of others or major societal norms or rules. *See* adjustment disorder, attention deficit hyperactivity disorder, and conduct disorder.

Outcome evaluation or summative evaluation—analyses that focus research questions on assessing the effects of interventions on intended outcomes. *See* process evaluation and program evaluation.

Parent and family skills training—a prevention approach in which parents are trained to develop new parenting skills and children are trained to develop prosocial skills. *See* family in-home support and family therapy.

Personal factor—a cognitive process, value, personality construct, and sense of psychological well-being inherent to an individual and through which societal and environmental influences are filtered. *See* behavioral factor, environmental factor, and sociodemographic factor.

Practice evidence—information obtained from prevention practice cases, which are generally compiled in the form of case studies and often include information about evaluating program implementation and procedures. *See* research evidence.

Preparation—the stage in which plans are being made to prevent a problem, leadership is active, funding is being solicited, and program pilot testing may be occurring. *See* community readiness.

Preplanning—the stage in which there is a clear recognition that a problem behavior exists locally and that something should be done about it. At this stage, general information on the problem is available and local leaders needed to advance change are identifiable, but no real planning has occurred. *See* community readiness.

Pre-post test—in research design, the collection of measurements before and after an intervention to assess its effects. *See* design, experimental design, nonexperimental design, and quasi-experimental design.

Prevalence—the number of all new and old cases of a disease or occurrences of an event during a particular period of time, usually expressed as a rate with the number of cases or events as the numerator and the population at risk as the denominator. Prevalence rates are often presented in standard terms, such as the number of cases per 100,000 population. *See* incidence.

Prevention approach—a group of prevention activities that broadly share common methods, strategies, assumptions (theories or hypotheses), and outcomes.

Preventive measure—denotes a cluster of interventions that share similarities with regard to the population groups among which they are optimally used. *See* indicated preventive measure, selective preventive measure, and universal preventive measure.

Primary prevention—efforts that seek to decrease the number of new cases of a disorder. *See* secondary prevention and tertiary prevention.

Probability sampling—a method for drawing a sample from a population such that all possible samples have a known and specified probability of being drawn.

Process evaluation—an assessment designed to document and explain the dynamics of a new or continuing prevention program. Broadly, a process evaluation

describes what happened as a program was started, implemented, and completed. A process evaluation is by definition descriptive and ongoing. It may be used to evaluate the degree to which prevention program procedures were conducted according to a written program plan. *See* outcome or summative evaluation and program evaluation.

Professionalization—the stage in which detailed information has been gathered about the prevalence, risk factors, and etiology of a local problem. At this point, various programs designed to reach general and specific target audiences are under way. Highly trained staff run the program, and community support and involvement is strong. Also at this stage, effective evaluation is conducted to assess and modify programs. *See* community readiness.

Program evaluation—the application of scientific research methods to assess program concepts, implementation, and effectiveness. *See* outcome or summative evaluation and process evaluation.

Promotion model—enhancing and making the most of people's positive functioning through development and improvement of competencies and capabilities that strengthen people's functioning and their capacity to adapt.

Protective factor—an influence that inhibits, reduces, or buffers the probability of drug use or abuse, or a transition to a higher level of involvement with drugs. *See* risk factor.

Qualitative data—generally constitute contextual information in evaluation studies and usually describe participants and interventions. Often presented as text, the strength of qualitative data is its ability to illuminate evaluation findings derived from quantitative methods. *See* quantitative data.

Quantitative data—in evaluation studies, measures that capture changes in targeted outcomes (e.g., substance use) and intervening variables (e.g., attitudes toward use). The strength of quantitative data is the use of these data in testing hypotheses and determining the strength and direction of effects. *See* qualitative data.

Quasi-experimental design—a research design that includes intervention and comparison groups and measurements of both groups, but assignment to the intervention and comparison conditions is not done on a random basis. With such research designs, attribution of an observed effect to the intervention is less certain than with experimental designs. *See* design, experimental design, nonexperimental design, and pre-post test.

Questionnaire—research instrument that consists of written questions, each with a limited set of possible responses.

Random assignment—the process through which members of a pool of eligible study participants are assigned to either an intervention group or a control group on a random basis, such as through the use of a table of random numbers.

Reliability—the extent to which a measurement process produces similar results on repeated observations of the same condition or event.

Reliable measure—will produce the same result (score) when applied two or more times. *See* valid measure.

Representative sample—a segment of a larger body or population that mirrors in composition the characteristics of the larger body or population.

Research—the systematic effort to discover or confirm facts by scientific methods of observation and experimentation.

Research evidence—information obtained from research studies conducted to evaluate the effectiveness of an intervention and published in peer-reviewed journals. *See* practice evidence.

Resilience—either the capacity to recover from traumatically adverse life events (e.g., the death of a parent, divorce, sexual abuse, homelessness, or a catastrophic event) and other types of adversity so as to achieve eventual restoration or improvement of competent functioning or the capability to withstand chronic stress (e.g., extreme poverty, alcoholic parents, chronic illness, or ongoing domestic or neighborhood violence) and to sustain competent functioning despite ongoing stressful and adverse life conditions. *See* family support.

Risk factor—a condition that increases the likelihood of substance abuse. *See* protective factor.

Secondary prevention—efforts that seek to lower the rate of established cases. *See* primary prevention and tertiary prevention.

Selective preventive measure—a preventive measure directed to subgroups of populations that have higher than average risk for developing a problem or disorder. *See* indicated preventive measure, preventive measure, and universal preventive measure.

Simple random sample—in experimental research designs, a sample derived from indiscriminate selection from a pool of eligible participants, such that each member of the population has an equal chance of being selected for the sample. *See* stratified random sample.

Single-component program—a prevention approach using a single intervention or strategy to target one or more problems. *See* multicomponent program.

Social development model—a model that seeks to explain behaviors, which are themselves risk factors for substance abuse, by specifying the socialization processes (the interaction of developmental mechanisms carried out through relationships with family, school, and peers) that predict such behavior. *See* developmental pathways model, contextualism, and social ecology model.

Social ecology model—a model that posits that an adolescent's interactions with social, school, and family environments ultimately influence substance abuse and other antisocial behaviors. This model also emphasizes the importance of increasing opportunities within the social environment for youth to develop social competencies and self-efficacy. *See* developmental pathways model, contextualism, and social development model.

Sociodemographic factor—a social trend, influence, or population characteristic that affects substance abuse-related risks, attitudes, or behaviors. Such factors have an indirect but powerful influence because of the limitations of the political, social, economic, and educational systems of society. *See* behavioral factor, environmental factor, and personal factor.

Statistical significance—refers to the strength of a particular relationship between variables. A relationship is said to be statistically significant when it occurs so frequently in the data that the relationship's existence is probably not attributable to chance.

Stratified random sample—in experimental research designs, a sample group derived from indiscriminate selection from different subsegments of a pool of eligible participants (e.g., men and women). *See* simple random sample.

Substance abuse—refers to the consumption of psychoactive drugs in such a way to significantly impair an individual's functioning in terms of physical, psychological, or emotional health; interpersonal interactions; or functioning in work, school, or social settings. The use of psychoactive drugs by minors is considered substance abuse.

Tertiary prevention—efforts that seek to decrease the amount of incapacity associated with an existing condition. *See* primary prevention and secondary prevention.

Threats to internal validity—factors other than the intervention that evaluators must consider when a program evaluation is conducted, regardless of the rigor of the evaluation design, that might account for or influence the outcome. These factors diminish the likelihood that an observed outcome is attributable to the intervention.

Time-series design—a research design that involves an intervention group evaluated at least once prior to the intervention and retested more than once after the intervention. A time-series analysis involves examination of fluctuations in the rates of a condition over a long period in relation to the rise and fall of a possible causative agent.

Universal preventive measure—a preventive measure directed to a general population or a general subsection of the population not yet identified on the basis of risk factors, but for whom the prevention activity could reduce the likelihood of problems developing. *See* indicated preventive measure, preventive measure, and selective preventive measure.

Vague awareness—the stage in which there is a general feeling that a behavior is a local problem that requires attention. However, knowledge about the extent of the problem is sparse, there is little motivation to take action to prevent it, and there is a lack of leadership to address it. *See* community readiness.

Valid measure—accurate assessment of what the evaluator wants to measure. *See* reliable measure.

Validity—the ability of an instrument to measure what it purports to measure. *See* external validity.

Variable—a factor or characteristic of the intervention, participant, or context that may influence or be related to the possibility of achieving intermediate and long-term outcomes. *See* multivariate.

NOTE: This glossary is based partially on work performed by Westover Consultants, Silver Spring, MD, and the Pacific Institute for Research and Evaluation, Bethesda, MD, under contract with the Center for Substance Abuse Prevention.

Appendix F: Resource Guide

This resource guide provides the reader with suggestions for family-centered resources. The first section lists names and addresses of researchers and practitioners whose work was considered as evidence in evaluating the various intervention programs. Because detailed descriptions of their program planning and content are beyond the scope of this guideline (and often are not fully described in their published works), CSAP thought that those interested in implementing specific strategies may want to obtain more detailed information directly from these researchers and practitioners. The second section of this appendix lists Federal Government agencies and nongovernment organizations that provide information, resources, and guidance regarding family-related interventions and programs. Some of these organizations have information clearinghouses. This section also lists examples of foundations that provide support for family-centered interventions or research. Some of the foundations also provide educational materials for practitioners or the lay public.

RESEARCHERS AND PRACTITIONERS

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Social and Behavioral Research Center for Rural Health
Center for Family Research in Rural Mental Health
Iowa State University
ISU Research Park
Building 2, Suite 500
2625 North Loop Drive
Ames, IA 50010

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EMT Associates, Inc.
771 Oak Avenue Parkway, Suite 2
Folsom, CA 95630

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1425 NW. 10th Avenue
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Program Planning, Research, and Evaluation
Common Sense Parenting Program
Father Flanagan's Boys Home
Boys Town, NE 68010

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Research Unit on Children's Psychosocial Maladjustment
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Parenting Clinic
School of Nursing
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Seattle, WA 98105-4631

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Sydney, N.S.W. 2006, Australia

Sharlene Wolchik, Ph.D.
Department of Psychology
Arizona State University
P.O. Box 871104
Tempe, AZ 85287-1108

Practitioners

Stephen Bavolek, Ph.D.
The Nurturing Program for Parents and Children
Family Development Resources
27 Dunnwoody Court
Arden, NC 28704-9588

Bernell Boswell
Families in Focus Program
The Cottage Program International
57 West South Temple, Suite 420
Salt Lake City, UT 84101-1511

Herbert Callison
Kansas Family Initiative
Kansas Department of Social and Rehabilitation Services
P.O. Box 47054
Topeka, KS 66647

Eileen Carroll
In-Home Care
California Department of Social Services
Office of Child Abuse Prevention
744 P Street, Mail Slot 19-82
Sacramento, CA 95814

Mary Heckenliable
Intensive Family Preservation Program
Hall Neighborhood House, Inc.
361 Bird Street
Bridgeport, CT 06605

Pat Mouton, M.S.W.
Parenting for Prevention Program
King County Division of Alcohol and Substance Abuse Services
999 Third Avenue, Suite 900
Seattle, WA 98104

Ted Strader
Creating Lasting Connections
Council on Prevention and Education: Substances
1228 East Breckenridge Street
Louisville, KY 40204

Linda Wheeler
Families and Schools Together Program
Family Service America
11700 West Lake Park Drive
Milwaukee, WI 53224-3099

AGENCIES, ORGANIZATIONS, AND FOUNDATIONS

Government Agencies

Administration for Children and Families
Administration on Children, Youth, and Families
330 C Street, SW., Room 2026
Washington, DC 20201
(202) 205-8347
http://www.acf.dhhs.gov

- Child Care Bureau
200 Independence Avenue, SW.
Room 320F
Washington, DC 20201
(202) 401-6947

- Children's Bureau
330 C Street, SW., Room 2070
Washington, DC 20201
(202) 205-8618

- Child Welfare Bureau
330 C Street, SW., Room 2068
Washington, DC 20201
(202) 205-8618

- Family and Youth Services Bureau
330 C Street, SW., Room 2046
Washington, DC 20201
(202) 205-8102

- Head Start Bureau
330 C Street, SW., Room 2058
Washington, DC 20201
(202) 205-8573

- National Child Care Information Center
301 Maple Avenue West, Suite 602
Vienna, VA 22180
(800) 616-2242
http://www.ericps.ed.uiuc.edu/nccic

- National Clearinghouse on Child Abuse and Neglect Information
P.O. Box 1182
Washington, DC 20013-1182
(800) FYI-3366
(703) 385-7565
http://www.calib.com/nccanch

- National Clearinghouse on Families and Youth
P.O. Box 13505
Silver Spring, MD 20911-3505
(301) 608-8098

- Office on Child Abuse and Neglect
330 C Street, SW., Room 2026
Washington, DC 20201
(202) 205-8586

Center for Substance Abuse Prevention
National Clearinghouse for Alcohol and Drug Information
P.O. Box 2345
Rockville, MD 20847-2345
(800) 729-6686
http://www.samhsa.gov/csap

Indian Health Service
Division of Clinical/Preventive Services
5600 Fishers Lane, Room 6A-55
Rockville, MD 20857
(301) 443-4644
http://www.ihs.gov

Juvenile Justice Clearinghouse
P.O. Box 6000
Rockville, MD 20850
(800) 638-8736
http://ncjrs.aspensys.com

Maternal and Child Health Bureau
Health Resources and Services Administration
5600 Fishers Lane, Room 18A-20
Rockville, MD 20857
(301) 443-0205
http://www.hrsa.dhhs.gov

- Division of Healthy Start
5600 Fishers Lane, Room 11A-13
Rockville, MD 20857
(301) 443-0509

- Division of Maternal, Infant, Child and Adolescent Health
5600 Fishers Lane, Room 18A-30
Rockville, MD 20857
(301) 443-2250

- Division of Services for Children With Special Health Needs

5600 Fishers Lane, Room 18A-27
Rockville, MD 20857
(301) 443-2350

U.S. Department of Education
600 Independence Avenue, SW.
Portals Building
Washington, DC 20202-6123
(800) 872-5327
(202) 401-2000
http://www.ed.gov

- Even Start Family Literacy Program

600 Independence Avenue, SW.
Portals Building
Washington, DC 20202
(202) 260-2777

- Office of Elementary and Secondary Education

Safe and Drug-Free Schools
600 Independence Avenue, SW.
Portals Building
Washington, DC 20202-6123
(202) 260-3954

U.S. Department of Health and Human Services
Office of the Assistant Secretary for Planning and Evaluation
200 Independence Avenue, SW.
Hubert H. Humphrey Building
Room 415F
Washington, DC 20201
(202) 690-7858
http://www.hhs.gov

- Division of Children and Youth Policy

200 Independence Avenue, SW.
Hubert H. Humphrey Building
Room 450G
Washington, DC 20201
(202) 690-6461

- Division of Public Health Policy

200 Independence Avenue, SW.
Hubert H. Humphrey Building
Room 442E
Washington, DC 20201
(202) 690-6870

U.S. Department of Housing and Urban Development
451 7th Street, SW.
Washington, DC 20410
(202) 708-1420
http://www.hud.gov

- Community Connections Information Center

Office of Community Planning and Development
P.O. Box 7189
Gaithersburg, MD 20898-7189
(800) 998-9999

- University Partnership Clearinghouse

HUD USER
P.O. Box 6091
Rockville, MD 20849
(800) 245-2691

U.S. Department of Labor
200 Constitution Avenue, NW.
Room S-1032
Washington, DC 20210-0002
(202) 219-8211
http://www.dol.gov

• Women's Bureau Clearinghouse
200 Constitution Avenue, NW.
Room S3306
Washington, DC 20210-0002
(800) 827-5335

• Work and Family Clearinghouse
200 Constitution Avenue, NW.
Room 3317
Washington, DC 20210-0002
(202) 219-4486

Nongovernment Organizations

American Association for Marriage and Family Therapy
Research and Education Foundation
1133 15th Street, NW., Suite 300
Washington, DC 20005
(202) 452-0109
http://www.aamft.org

American Public Welfare Association
810 First Street, NE., Suite 500
Washington, DC 20002-4267
(202) 682-0100

Center for Family Life in Sunset Park
345 43rd Street
Brooklyn, NY 11232
(718) 788-3500

Children's Defense Fund
25 E Street, NW.
Washington, DC 20001
(202) 628-8330
(202) 628-8787
http://www.childrensdefense.org

The Children's Foundation
725 15th Street, NW., Suite 505
Washington, DC 20005
(202) 347-3300

Child Welfare League of America
440 First Street, NW., Suite 310
Washington, DC 20001-2085
(202) 638-2952
http://www.cwla.org

Family Resource Coalition
200 South Michigan Avenue,
16th Floor
Chicago, IL 60604
(312) 341-0900

The C. Henry Kempe National Center for the Prevention and Treatment of Child Abuse and Neglect
1205 Oneida Street
Denver, CO 80220
(303) 321-3963
http://www.kempecenter.org

National Association of Child Care Resource and Referral Agencies
1319 F Street, NW., Suite 810
Washington, DC 20004-1106
(202) 393-5501

National Black Child Development Institute
1023 Fifteenth Street, NW., Suite 600
Washington, DC 20005
(202) 387-1281
http://www.nbcdi.org

National Center for Children in Poverty
Columbia University School of Public Health
Columbia University
154 Haven Avenue
New York, NY 10032
(212) 927-8793
(212) 304-7100
http://cpmcnet.columbia.edu/dept/nccp

National Center for the Early Childhood Work Force
733 15th Street, NW., Suite 800
Washington, DC 20005
(202) 737-7700

National Child Care Information Center
301 Maple Avenue West, Suite 602
Vienna, VA 22180
(800) 616-2242
Fax: (800) 716-2242
http://ericps.ed.uiuc.edu/nccic

National Head Start Association
1651 Prince Street
Alexandria, VA 22314
(703) 739-0875
http://www.nhsa.org

National Indian Child Care Association
279 East 137th Street
Glenpool, OK 74033
(918) 756-2112

National Indian Child Welfare Association
3611 S.W. Hood Street, Suite 201
Portland, OR 97201
(503) 222-4044

National Information Center for Children and Youth with Disabilities
P.O. Box 1492
Washington, DC 20013-1492
(800) 695-0285
http://www.nichcy.org

National Information Clearinghouse for Infants With Disabilities and Life Threatening Conditions
University of South Carolina
Benson Building, First Floor
Columbia, SC 29208
(800) 922-9234
(803) 777-4435

National Maternal and Child Health Clearinghouse
8201 Greensboro Drive, Suite 600
McLean, VA 22102-3843
(703) 821-8955

National Parent Information Network
ERIC Clearinghouse on Elementary and Early Childhood Education
University of Illinois at Urbana-Champaign
Children's Research Center
51 Gerty Drive
Champaign, IL 61820-7469
(217) 333-1386
http://www.uiuc.edu

National Resource Center on Child Abuse and Neglect
63 Inverness Drive East
Englewood, CO 80112-5117
(800) 227-5242

National Youth Center Network
254 College Street, Suite 501
New Haven, CT 06510
(203) 773-0770
http://www.nycn.org

Zero to Three: National Center for Infants, Toddlers, and Families
734 15th Street, NW., Tenth Floor
Washington, DC 20005-2101
(202) 638-1144
(800) 899-4301 (publications)
http://www.zerotothree.org

Foundations

The following are private foundations that provide grants for services and research regarding family-centered interventions. Grant-maker organizations, such as the Foundation Center, can provide information on the wide array of private foundations, corporate grantmakers, grant-making public charities, and community foundations.

The Carnegie Corporation of New York
437 Madison Avenue
New York, NY 10022
(212) 371-3200
http://www.carnegie.org

The Annie E. Casey Foundation
701 St. Paul Street
Baltimore, MD 21202
(410) 546-6600
http://www.aecf.org

The Ford Foundation
320 East 43rd Street
New York, NY 10017
(212) 573-5000
http://www.fordfound.org

The Foundation Center
79 Fifth Avenue/16th Street
New York, NY 10003-3076
(212) 620-4230
http://fdncenter.org

The William Randolph Hearst Foundations
888 Seventh Avenue, 45th Floor
New York, NY 10106-0057
(212) 584-5404

The Robert Wood Johnson Foundation
Route 1 and College Road East
P.O. Box 2316
Princeton, NJ 08543-2316
(609) 452-8701
http://www.rwjf.org

The Henry J. Kaiser Family Foundation
2400 Sand Hill Road
Menlo Park, CA 94025
(415) 854-9400
http://www.kff.org

The W. K. Kellogg Foundation
One Michigan Avenue East
Battle Creek, MI 49017-4058
(616) 968-1611
http://www.wkkf.org

The John D. and Catherine T. MacArthur Foundation
140 South Dearborn Street, Suite 1100
Chicago, IL 60603-5285
(312) 727-8000
http://www.macfdn.org

The David and Lucile Packard Foundation
300 Second Street, Suite 200
Los Altos, CA 94022
(415) 948-7658
http://www.packfound.org

The Pew Charitable Trusts
2005 Market Street, Suite 1700
Philadelphia, PA 19103
(215) 575-9050
http://www.pewtrusts.com

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